TANDBERG

# Content Server

## ADMINISTRATOR GUIDE

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TANDBERG
# Content Server

## Introduction

The TANDBERG Content Server provides users with a quick and easy way to record video meetings and view them live or on demand. The following page provides an overview of the main features.

We recommend that you check out the TANDBERG web site regularly for updated versions of this manual:
http://www.tandberg.com/support/documentation.php

# Features at a Glance



The TANDBERG Content Server provides users with a quick and easy way to record video meetings and view them live or on demand from their computers.

## Flexible Content Creation

- Customizable Personal and System Recording Aliases automatically apply recording and streaming settings, conference permissions and metadata.
- Support for dialing in and dialing out from the Content Server.
- TANDBERG Management Suite (TMS) integration:
  - Support for Personal and System Recording Aliases through integration with TMS 11.8 and above..
  - Backwards compatibility with TMS 11.7.

## Recording

- Large scale content creation from up to five concurrent video conferences (if registered to a gatekeeper).
- Powerful predefined system templates (see Recording Templates at a Glance for a full list of system templates and their recording and streaming outputs).
- Dual Stream support for all calls.

## Streaming

- Live streaming of video meetings in multiple formats and data rates.
- Multicast and unicast streaming.
- In-built Windows Media™ streaming server.
- Integration with external streaming servers for publishing Windows Media™, RealNetworks® Real Media (RealAudio® and RealVideo®) and QuickTime® compatible MPEG4 content.

## Authentication

- Support for local, LDAP and domain authentication.
- Support for guest (unauthenticated access) with PIN-protection for conferences.

## Permissions

- Access-list based model for viewing live and recorded conferences and editing recorded content.

## Content Library

- Searchable content library for viewing live and recorded content.
- Ability to assign customized Categories to conferences and sort conferences by Category.

## Content Viewing Experience

- Indexing content for quick retrieval by using the Index.
- Picture in Picture, Two Videos, Joined, and Switching layouts available.
- Ability to switch between different views of the video streams and the index (if available).

## Content Editing

- Ability to add and manage index points in the Content Editor.
- Ability to set the start and end points for conference playback and create a playlist for playback of up to two conferences.

## Administration

- User-friendly web-based interface for administrative system configuration.
- Access to administrative logs and Windows Server from the Content Server web interface.

## Gatekeeper Settings

- Ability to register the Content Server with the gatekeeper as a Terminal or a Gateway.
- Native support for TANDBERG Expressway.

## Scalability

- Support for media storage in an external storage location, such as Network Attached Storage.

## New in Version 3.1

- Updated Windows Media multicast support to allow streaming on a fixed port
- Added support for multicast streaming of MPEG4 video directly off the Content Server

## New in Version 3.0

- Support for H.264.
- Support for encrypted H.323 calls.
- Support for SIP.
- Wide formats:
  - H263: w228p, w448p, w576p
  - H.264: w228p, w448p, w576p, w720p
- New call model with five concurrent calls transcoded to the same formats.
- Ability to add outputs to recorded conferences for on-demand viewing with the Offline Transcoder.
- An easy-to–use, graphical Template Editor, with a wide selection of layouts and resolutions.
- Added MPEG4 format for viewing and downloads.
- Optimized downloadable media for portable devices—iPod and Zune.
- Updated Content Library interface, with thumbnails and automatic bandwidth detection.
- Fully flexible Content Viewer.
- Context-sensitive online help.

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US7,136,577

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EP01953201

GB1338127

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# Safety Instructions

For your protection please read these safety instructions completely before you connect the equipment to the power source. Carefully observe all warnings, precautions and instructions both on the apparatus and in these operating instructions.

Retain this manual for future reference.

## Water and Moisture

- Do not operate the apparatus under or near water—for example near a bathtub, kitchen sink, or laundry tub, in a wet basement, near a swimming pool or in other areas with high humidity.
- Never install jacks for communication cables in wet locations unless the jack is specifically designed for wet locations.
- Do not touch the product with wet hands.

## Cleaning

- Unplug the apparatus from communication lines, mains power-outlet or any power source before cleaning or polishing.
- Do not use liquid cleaners or aerosol cleaners.
- Use a lint-free cloth lightly moistened with water for cleaning the exterior of the apparatus.

## Ventilation

- Do not block any of the ventilation openings of the apparatus. Never cover the slots and openings with a cloth or other material.
- Never install the apparatus near heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not place the product in direct sunlight or close to a surface directly heated by the sun.

## Lightning

- Never use this apparatus, or connect/ disconnect communication cables or power cables during lightning storms.

## Dust

- Do not operate the apparatus in areas with high concentration of dust.

## Vibration

- Do not operate the apparatus in areas with vibration or place it on an unstable surface.

## Power Connection and Hazardous Voltage

- The product may have hazardous voltage inside. Never attempt to open this product, or any peripherals connected to the product, where this action requires a tool.
- This product should always be powered from an earthed power outlet.
- Never connect attached power supply cord to other products.

In case any parts of the product have visual damage never attempt to connect mains power, or any other power source, before consulting service personnel.

- The plug connecting the power cord to the product/power supply serves as the main disconnect device for this equipment. The power cord must always be easily accessible.
- Route the power cord so as to avoid it being walked on or pinched by items placed upon or against it. Pay particular attention to the plugs, receptacles and the point where the cord exits from the apparatus.
- Do not tug the power cord.
- If the provided plug does not fit into your outlet, consult an electrician.
- Never install cables, or any peripherals, without first unplugging the device from it's power source.

## Servicing

- Do not attempt to service the apparatus yourself as opening or removing covers may expose you to dangerous voltages or other hazards, and will void the warranty. Refer all servicing to qualified service personnel.
- Unplug the apparatus from its power source and refer servicing to qualified personnel under the following conditions:
  - If the power cord or plug is damaged or frayed.
  - If liquid has been spilled into the apparatus.
  - If objects have fallen into the apparatus.
  - If the apparatus has been exposed to rain or moisture.
  - If the apparatus has been subjected to excessive shock by being dropped.
  - If the cabinet has been damaged.
  - If the apparatus seems to be overheated.
  - If the apparatus emits smoke or abnormal odor.
  - If the apparatus fails to operate in accordance with the operating instructions.

## Accessories

- Use only accessories specified by the manufacturer, or sold with the apparatus.

## Communication Lines

- Do not use communication equipment to report a gas leak in the vicinity of the leak.

# Environmental Issues

Thank you for buying a product which contributes to a reduction in pollution, and thereby helps save the environment. Our products reduce the need for travel and transport and thereby reduce pollution. Our products have either none or few consumable parts (chemicals, toner, gas, paper). Our products are low energy consuming products.

## TANDBERG's Environmental Policy

Environmental stewardship is important to TANDBERG's culture. As a global company with strong corporate values, TANDBERG is committed to following international environmental legislation and designing technologies that help companies, individuals and communities creatively address environmental challenges.

TANDBERG's environmental objectives are to:

- Develop products that reduce energy consumption, $CO_2$ emissions, and traffic congestion.
- Provide products and services that improve quality of life for our customers.
- Produce products that can be recycled or disposed of safely at the end of product life.
- Comply with all relevant environmental legislation.

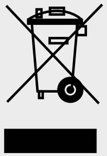
## European Environmental Directives

As a manufacturer of electrical and electronic equipment TANDBERG is responsible for compliance with the requirements in the European Directives 2002/96/EC (WEEE) and 2002/95/EC (RoHS).

The primary aim of the WEEE Directive and RoHS Directive is to reduce the impact of disposal of electrical and electronic equipment at end-of-life. The WEEE Directive aims to reduce the amount of WEEE sent for disposal to landfill or incineration by requiring producers to arrange for collection and recycling. The RoHS Directive bans the use of certain heavy metals and brominated flame retardants to reduce the environmental impact of WEEE which is landfilled or incinerated.

TANDBERG has implemented necessary process changes to comply with the European RoHS Directive (2002/95/EC) and the European WEEE Directive (2002/96/EC).

## Waste Handling



In order to avoid the dissemination of hazardous substances in our environment and to diminish the pressure on natural resources, we encourage you to use the appropriate take-back systems in your area. Those systems will reuse or recycle most of the materials of your end of life equipment in a sound way.

TANDBERG products put on the market after August 2005 are marked with a crossed-out wheelie bin symbol that invites you to use those take-back systems.

Please contact your local supplier, the regional waste administration or http://www.tandberg.net/recycling if you need more information on the collection and recycling system in your area.

## Information for Recyclers

As part of compliance with the European WEEE Directive, TANDBERG provides recycling information on request for all types of new equipment put on the market in Europe after 13 August 2005.

Please contact TANDBERG and provide the following details for the product for which you would like to receive recycling information:

- Model number of TANDBERG product
- Your company's name
- Contact name
- Address
- Telephone number
- E-mail.

## Digital User Guides

TANDBERG is pleased to announce that we have replaced the printed versions of our User Guides with a digital CD version. Instead of a range of different user manuals, there is now one CD—which can be used with all TANDBERG products—in a variety of languages. The environmental benefits of this are significant. The CDs are recyclable and the savings on paper are huge. A simple web-based search feature helps you directly access the information you need. In addition, the TANDBERG video systems now have an intuitive on-screen help function, which provides a range of useful features and tips. The contents of the CD can still be printed locally, whenever needed.

声　明

此为 A 级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对其干扰采取切实可行的措施。

WARNING:

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

TANDBERG
Content
Server

# Installation

An important section covering the first time installation of the Content Server. Observe that for security reasons we strongly recommend that you change the IP address from DHCP to static as soon as the unit is in production.

# Preparing for Use

## What's in the Box?

To avoid damage to the unit during transportation, the Content Server is delivered in a special shipping box, which should contain the following components:

- CD with User Guide and other documentation.
- Rack-ears, screws and screwdriver.
- Cables.
- Power cable.
- Ethernet cable.
- TANDBERG Content Server.

Please report any discrepancies to your TANDBERG Representative immediately.

## Installation Site Preparations

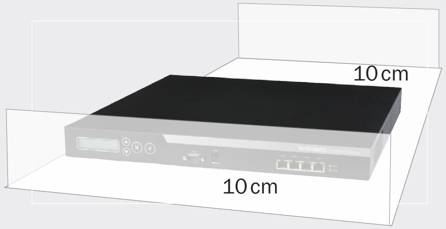
- Make sure the Content Server is accessible and that all cables can be easily connected.
- For ventilation: Leave a space of at least 10 cm (4 inches) behind the Content Server's rear panel and 10 cm (4 inches) in front of the front panel.
- The room in which you install the Content Server should have an ambient temperature between 0 °C and 35 °C (32 °F and 95 °F) and between 10 % and 90 % non-condensing relative humidity.
- Do not place heavy objects directly on top of the Content Server.
- Do not place hot objects directly on top, or directly beneath the Content Server.
- Use a grounded AC power outlet for the Content Server.

## Rack Mounting (optional)

1. Before starting the rack mounting please make sure the TANDBERG Content Server is placed securely on a hard flat surface.

2. Disconnect the AC power cable, if applicable.

3. Make sure that the mounting space is prepared according to the Installation Site Preparations below left.

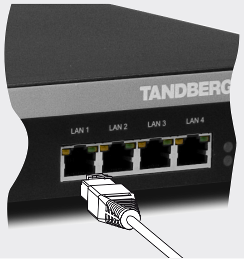



4. Attach the brackets to the Content Server on both sides of the unit.

5. Insert the Content Server into a 19" rack, and secure with screws in the front (four screws).

## Connecting Cables

1. Connect a LAN cable from the LAN 1 connector on the Content Server to your network. The LAN 2, 3 and 4 connectors are not used and should be left open.




2. Connect the AC power cable to an electrical distribution socket. Press the power switch button at the back side to 1 to turn on the Content Server. On the front panel of the system the power indicator LED, marked Pwr, will light up.

# IP Address Setting Configuration

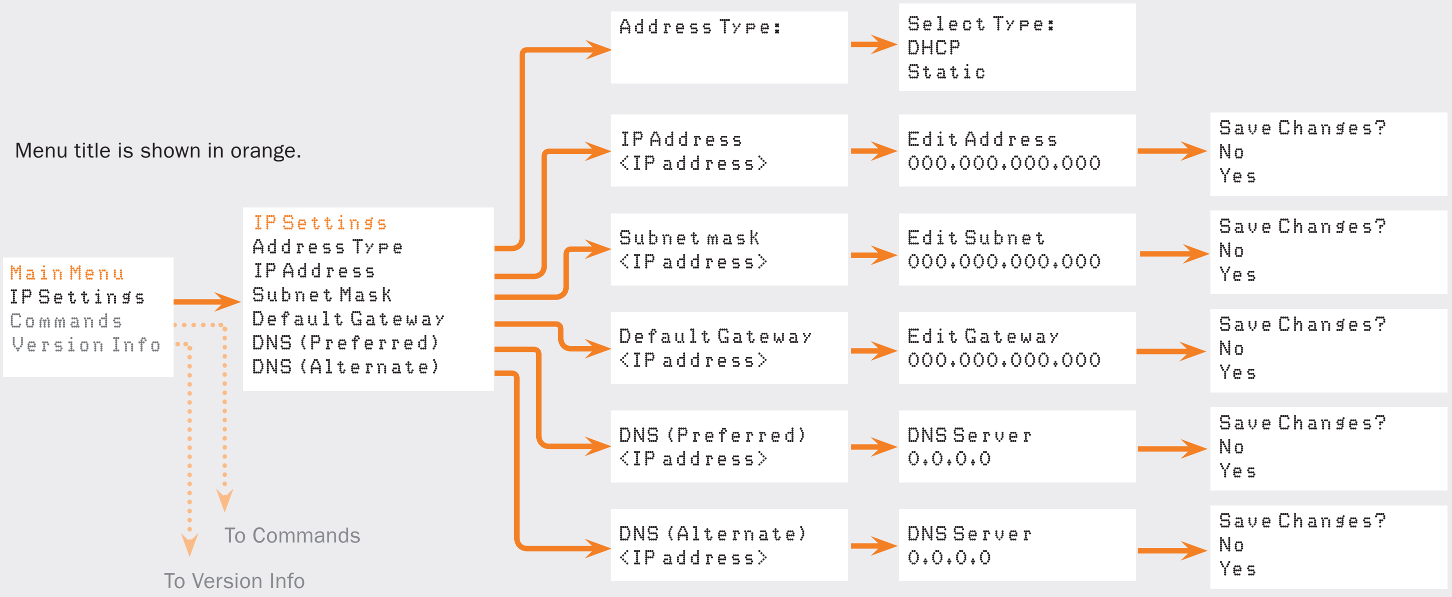
## About IP Address Setting

The Content Server requires the IP Address Settings to be configured before it can be used. IP Address can be configured using the LCD Panel—see the block diagram to the right and the example on the next page.

The front panel keys are used as follows:

- ✓ Use this key to enter the edit mode and confirm selection or entry.
- ✕ Use this key to return to the previous menu screen or exit the edit mode without saving the latest entry.
- ▲ ▼ Use these keys to select items in the menu, move between values in a numerical address and modify numerical values.

## IP Settings Menus Available



# Examples of Front Panel Operation

## Set the IP Address to Static

We strongly recommend that you change the IP address from DHCP to Static once the Content Server is in production.

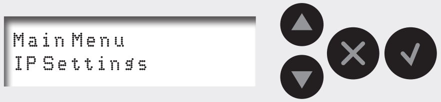
Use the examples on this page together with the diagram on the previous page to set the IP address.

To set the subnet mask, default gateway and DNS IP addresses, follow the steps described below.

## Example 1: Setting the IP Address Type

**1**

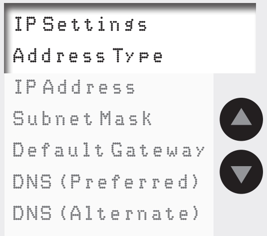
Press Enter to produce the menu. The display shows two lines at a time:




The upper line is the menu title (as shown here) or a text describing a submenu or the setting shown (as in the example to the right). The settings available can be displayed one by one (the upper line is retained) by scrolling up and down.

**2**

Selecting IP Settings > Address Type

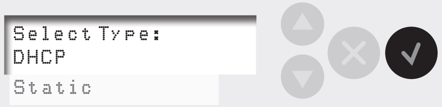



Use the Arrow keys to scroll up and down and have the settings shown displayed one by one. The menu title will be retained.

The IP Settings has six submenus. Use the Arrow keys to locate Address Type

**3**

Press Enter twice to enter the submenu:



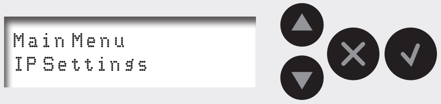

Use the Arrow keys to scroll down to Static.

Press Enter to put the change into effect and proceed to specify the IP address.

## Example 2: Setting the IP Address Itself

**1**

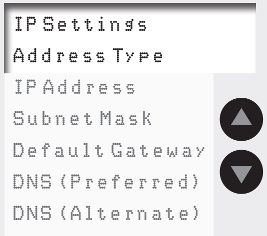
Press Enter to produce the menu. The display shows two lines at a time:




The upper line is the menu title (as shown here) or a text describing a submenu or the setting shown (as in the example to the right). The settings available can be displayed one by one (the upper line is retained) by scrolling up and down.

**2**

Selecting IP Settings > IP Address

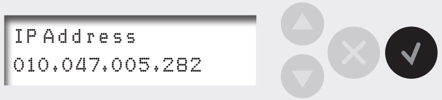



Use the Arrow keys to scroll up and down and have the settings shown displayed one by one. The menu title will be retained.

The IP Settings has six submenus. Use the Arrow keys to locate IP Address

**3**

Press Enter to enter the submenu:




Press Enter to edit the address.

The first digit will now blink.

Use the Arrow keys to scroll through the numbers (0–9) and press Enter when the number requested appears. The next digit will then start to blink.

Repeat until the final digit has been set.

**4**

Press Enter to bypass any digit not in need of adjustment.

When all digits have been set pressing Enter will produce the Save Changes menu.

Use Arrow keys to select applicable option.

Use Enter to exit the menu putting changes into effect.This will take you back to the IP Settings menu.

If you need to change other settings repeat the procedure selecting the applicable IP Setting submenu (e.g. Default Gateway) first.

Use Return to leave a menu undoing any changes. This will also take you back to the IPSettings menu.

TANDBERG
# Content Server

## Quick Setup

The Quick Setup section will help you get your Content Server online and operational quickly. Please note that as a security precaution, you should change the administrative password at setup time and before the Content Server is used in production.

# Basic H.323 Services Setup

## About Basic H.323 Services

A quick basic setup of your TANDBERG Content Server includes:

1. Setting up H.323 services via the Content Server interface.
2. Making a test call recording.
3. Changing the administrator password and setting up server date and time on the Windows Server.

Make sure that the E.164 aliases and H.323 IDs unique on your network are valid for your gatekeeper or border controller. By default, the Content Server's H.323 ID is set to the machine name, eg. TANDBERG-<random number>. The H.323 ID of a live Recording Alias is set to Live<machine_name> and the H.323 ID of an on demand Recording Alias is set to OnDemand<machine_name>. If upgrading from S2, the machine name will be replaced by the serial number.

You can register the Content Server with either gatekeeper or border controller. For simplicity in this document we'll use gatekeeper to refer to either device.

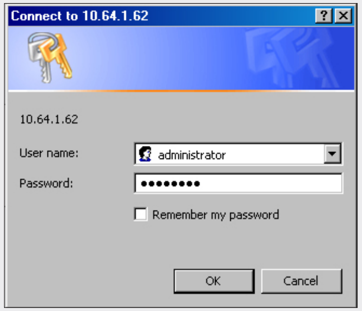
The default local administrator account should be used for administrative functions such as system upgrades and updates and when using Remote Desktop access to the Content Server. It is therefore very important to change your password as described in the Windows Server Setup section.

For more on setting the administrative properties and user configuration, see the Administrator Settings section.

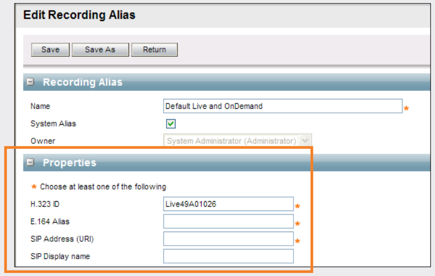
## Step 1 - Initial Setup

1. Start a Web browser and enter the IP address of the Content Server. You can use either http or https, with https recommended for administrative access.

2. When prompted for login, enter the username `administrator` and password `TANDBERG`



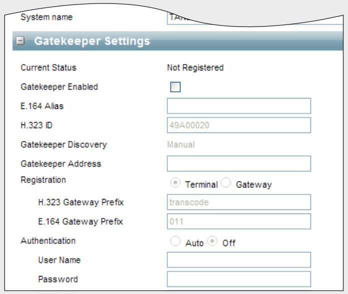

3. Go to Conference Setup > Recording Alias Options. Edit the E.164 aliases and H323 IDs for the default Recording Aliases and save.



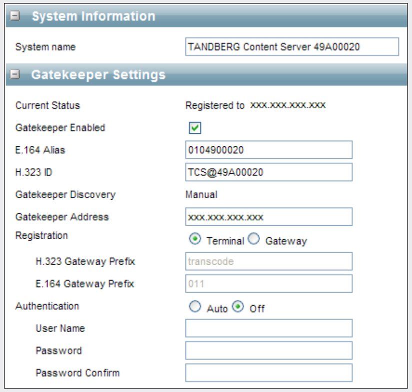

4. Go to the Administrator Settings > Site Settings to set the System Name for the Content Server.

Note: The System Name is used by TMS to identify the Content Server.

5. If required, set Gatekeeper registration to Enabled and set the Gatekeeper IP address. You can choose to register the Content Server as a Terminal or a Gateway. If you select Gateway registration, you will need to enter H.323 and E.164 Gateway prefixes.




6. Save the Site Settings. You may refresh the browser page to check if gatekeeper registration has been successful.



# Basic H.323 Services Setup

## About Basic H.323 Services

A quick basic setup of your TANDBERG Content Server includes:

1. Setting up H.323 services via the Content Server interface (described on the previous page).
2. Making a test call recording.
3. Changing the administrator password and setting up server date and time on the Windows Server (described on the next page).

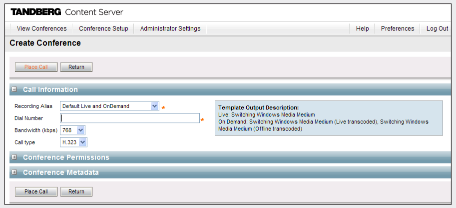
If the Content Server is not registered to a gatekeeper, you can make a test recording by dialing the IP address of the Content Server from an endpoint.

To read more on Recording Aliases, see Recording Aliases

## Step 2 - Call Recording Test

1. If you have logged out, log back in to the Content Server web interface via http or https://<ContentServerIPaddress>.

2. Go to Conference Setup > Create Conference.




3. Select a default recording alias, type the address of the endpoint you want to call and click on Place Call. Alternatively, you can dial one of the recording aliases' E.164 alias or H.323 ID from your endpoint.

4. If the recording alias you have selected has a live stream output, you can watch the streaming call in Live Conferences. Calls made with aliases which have no live streaming outputs will not be available for viewing until the call has finished and the recording has been transcoded.

5. You can end the call from the Edit link in Live Conferences, or from the endpoint you dialed.

6. You can watch the on demand conference in Recorded Conferences. Calls which were made with the default On Demand alias need to be transcoded before they can be watched. The progress of the transcoding process can be viewed in Pending Conferences.

# Basic H.323 Services Setup

## About Basic H.323 Services

A quick basic setup of your TANDBERG Content Server includes:

1. Setting up H.323 services via the Content Server interface (described two pages back).
2. Making a test call recording (described on the previous page).
3. Changing the administrator password and setting up server date and time on the Windows Server.

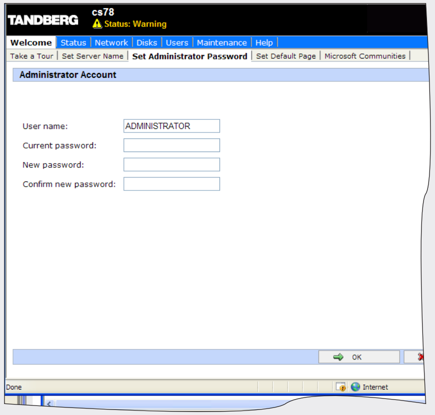
Remember to restart the Content Server every time you change date, time and time zone information.

You may wish to record your new administrative password in a safe location. Please note that you should not change the default administrator account name.

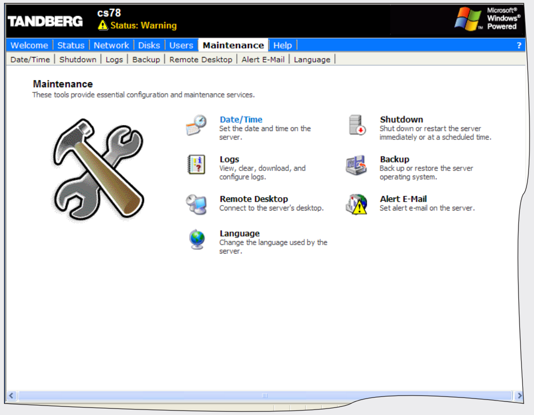
To read more on how to set the administrative properties and user configuration, see the Administrator Settings section.

## Step 3 -Web Server Setup

1. Once the initial setup has been completed (previous page), log in to the Web User Interface for Microsoft Windows Server administration, https://<ContentServerIPaddress>:8098/, using Internet Explorer and use the Set Administrative Password tool to change your administrative password.




2. Go to Maintenance > Date/Time to update Date and Time settings on the server.




## Recommended Next Steps

Now that you have completed your installation and tested your Content Server. you need to go to Recommended next steps in setting up your Content Server for recommendations and best practice in administering the Content Server for your installation.

TANDBERG
# Content Server

## TCS Administration

The Operation section contains important information about:

- Recommended Next Steps in Setting up Your Content Server
- Product Registration and Security Updates
- Shutting Down and Restarting
- Restoring to Default Settings

# Recommended Next Steps in Setting up Your Content Server

| What | Why | How |
|---|---|---|
| Register your Content Server using the Registration Card | You need to register the Content Server if you would like to be contacted when updates to the TANDBERG Content Server become available. | Use the Registration Card or via the web at www.tandberg.com/register |
| Apply Security Updates | You should check the TANDBERG web site site for new security update installers and apply them regularly to ensure that your Content Server is protected with the most up-to-date security patches released by Microsoft and tested for compatibility by TANDBERG | Go to security updates on the TANDBERG web site. |
| Set up your Authentication Method | Local is the default authentication option. It is recommended that you change authentication to LDAP or Domain mode once the Content Server is in production. | Go to the Authentication section. |
| Add Users | Once you have selected an authentication mode, you need to setup your users or groups and assign them their correct privileges to use the Content Server. User roles on the Content Server include Users, Owners and Administrators. | Go to the User Management section. |
| Set up Guest Access (if required) | Decide whether you want to enable Guest Access, which will allow non authenticated users to view conferences on the Content Server. Only conferences that have the, “Allow access to all users“ option, selected in the Conference Permissions will be able to be viewed by Guests. Any conference that has access restricted to Authenticated Users will not be available to Guests. | Go to the User Properties section. |
| Configure your Media Servers | If you want to use an external streaming server or set up multicast streaming, you will need to configure a Media Server for Live and/or On Demand Streaming. | Go to the Media Servers section. |
| Select your Default Media Servers | Make the Media Servers you have just created your system defaults. Default Media Servers will be used when Recording Templates are created. | Go to the System Defaults section. |
| Configure Recording Templates | There are a number of default System Templates on the Content Server that need to be reviewed for each installation. Either Edit an existing Template and save as a new template or create new ones for the needs of the Users at the installation. | Go to the Templates section. |
| Add/Change Categories | Conferences can be assigned a Category to assist users to find what they are looking for. For example, Marketing may be a Category that is used for all Conferences related to or created by Marketing. Users can filter all Conferences by selecting the Marketing Category. | Go to the Categories section. |
| Review and configure Recording Aliases | Each Recording Alias has an H.323, E.164 and/or SIP number that can be dialed to record a conference. Recording Aliases can be System wide or owned by individual users. The users can manage their own Recording Aliases by editing Permissions and Metadata on a call by call basis. Recording Aliases are also used by the TANDBERG Management Suite to schedule conference recordings. | Go to the Recording Alias Options section. |
| Select the Recording Alias System Default | When the system E.164 alias, system name or content server IP address is called, the Default Recording Alias will be used. | Go to the System Defaults section. |
| Configure TMS | So Owners of Recording Aliases can use TMS to record their conferences. | Using TMS to Schedule Calls section. |

# Product Registration and Security Updates

## Product Registration

You need to register the product if you would like to receive an email from TANDBERG Constant Care Services when updates to the TANDBERG Content Server become available.

You can register using the Registration Card provided with your Content Server or via the web at www.tandberg.com/register.

You can also check the following ftp site for all available downloads:

http://ftp.tandberg.com/pub/software/content_server/

## Security Updates

All relevant security updates for the TANDBERG Content Server are available from the following ftp site: http://ftp.tandberg.com/pub/software/device_security/.

IT IS IMPORTANT THAT YOU DOWNLOAD AND INSTALL THE MOST RECENT SECURITY UPDATE FOR EACH YEAR FROM THE TANDBERG FTP SITE BEFORE USING THIS PRODUCT. YOU SHOULD ALSO CHECK THIS SITE REGULARLY TO SEE IF NEW SECURITY UPDATES ARE AVAILABLE. ALL SECURITY UPDATES RELEVANT TO THE Content Server ARE CUMULATIVE THROUGHOUT THE CALENDAR YEAR.

## Security Certificate Management

The TANDBERG Content Server has implemented SSL (Secure Sockets Layer) protocol for sending user authentication information (username and password) in a secure way at user log in. The SSL implementation means that the Content Server website needs to establish its credentials with the user's browser through an electronic document known as a security certificate.

Each TANDBERG Content Server is shipped with a self signed certificate issued by TANDBERG, which is valid for a year. As TANDBERG is not a trusted Certificate Authority, when users try to log in to the Content Server, most browsers will display a message that the identity of the site could not be verified. Users may add the Content Server to their trusted sites list to avoid getting error messages at log in.

Once the original Content Server certificate has expired, another certificate request can be generated using the IIS certificate wizard. Once this request is generated, another self signed certificate may be created, using a third party tool, or this request can be forwarded to a certificate issuing authority.

TANDBERG recommends purchasing a security certificate from a certificate issuing authority that has a trusted relationship back to a root authority, such as VeriSign or Comodo. These credentials are most likely to be trusted by browsers, removing the need to add the Content Server to the list of trusted sites. This certificate needs to be generated against the Windows machine name or the DNS entry associated with the IP address that the TCS is using.

## About Remote Desktop

Content Server software upgrades and security updates need to be installed using Remote Desktop access.

Remote Desktop access is also used for:

- Backing up the Content Server. See also the Backing Up and Restoring section.
- Changing the default media storage location. See also the Media Storage Location section.

## Using Remote Desktop

1. Open the Remote Desktop Utility on your PC (Start>Programs> Accessories> Communications>Remote Desktop Connection).
2. Provide the local administrator username and password.
3. If you want to copy security updates or software upgrade files from your PC to the Content Server desktop, click on Options>LocalResources and select Disk Drives, then click on Connect.
4. Once you are logged in, you can gain access to security updates or software upgrade files on your local PC by expanding My Computer. Note that mapped drives correspond to the drives on your PC.
5. Once you have finished the necessary installations, restart the Content Server if prompted to do so. Otherwise, terminate your Remote Desktop session by logging off. Please note that if you choose Shut down, it will shut down the Content Server!

# Shutting Down and Restarting

## System Status

The LCD panel display indicates the current status of the Content Server.

| | |
|---|---|
| <IP Address><br>IN CALL | LCD panel display when a call is currently in progress. |
| <IP Address><br>IDLE | LCD panel display when no calls are currently in progress. |
| <IP Address><br>TRANSCODING | LCD panel display when transcoding is in progress. |

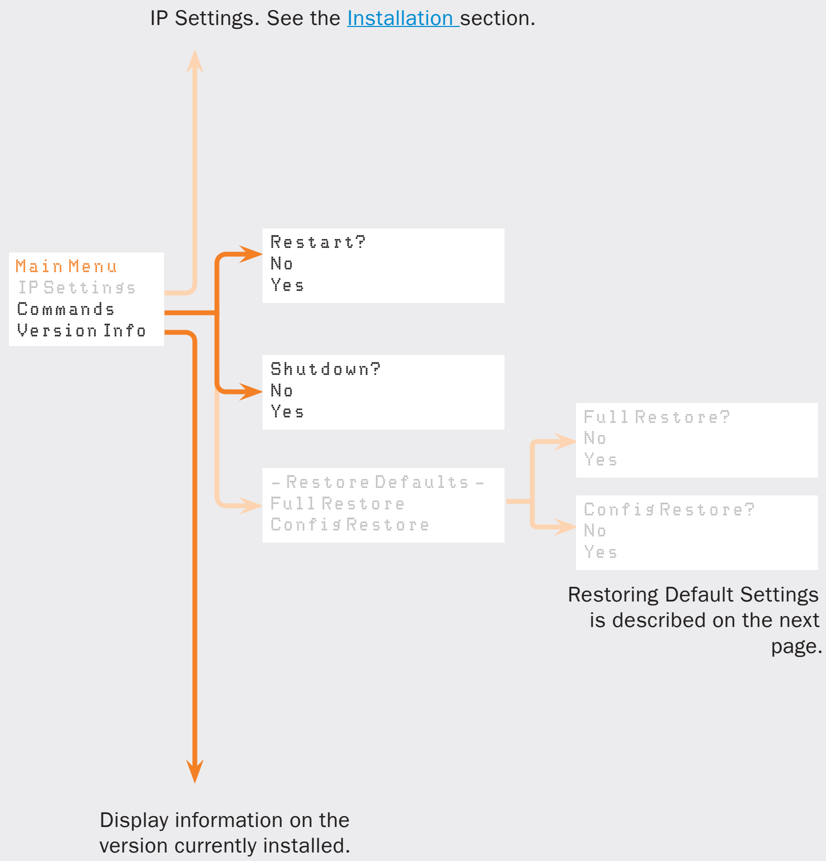
In addition you will also find the currently installed version, as can be seen from the below menu structure.

For details on how to restart the Content Engine service without restarting the Content Server, see the Administrator Settings section.

### Do not Shutdown or Restart the Content Server While Calls Are In Progress!

We do not recommend to shutdown or restart the Content Server while calls are in progress. If the Content Server is in a call and the server is restarted or shut down, calls in progress will fail and will not be recorded.

## Command Menu Structure




## Restarting the Content Server

1. Press Enter to display the Main Menu screen
2. From the Main Menu screen, use the Up or Down arrow to select Commands
3. Press Enter to confirm your selection
4. From the Commands menu, use the Up or Down arrow to select Restart and press Enter
5. You will be asked to confirm this action on the following screen. At the Restart? prompt, use the Up or Down arrow to select Yes and press Enter to confirm.

## Shutting Down the Content Server

1. Press Enter to display the Main Menu screen
2. From the Main Menu screen, use the Up or Down arrow to select Commands
3. Press Enter to confirm your selection
4. From the Commands menu, use the Up or Down arrow to select Shutdown and press Enter
5. You will be asked to confirm this action on the following screen. At the Shutdown? prompt, use the Up or Down arrow to select Yes and press Enter to confirm.
6. IMPORTANT—wait until is is safe to shut down the Content Server and the LCD panel displays Power off.

# Restoring to Default Settings

## About Restoring to Default Settings

The administrator can restore the Content Server to default settings partially or fully via the LCD panel.

A partial restore to default settings—Config Restore—restores the default configuration files and templates, but does NOT affect the content stored on the server.

A full restore to default settings—Full Restore—removes content and deletes all media files in addition to restoring the factory configuration files and templates.

Restoring to defaults command in v.3.0 will restore the Content Server to v.3.0 defaults, but it will also remove any configurations specific to v.2.x, if the Content Server has been upgraded to v3.0 from v2.x!

Restoring to defaults—both Config Restore and Full Restore—will take about 20 minutes and must not be interrupted!

Logs are available in E:\logs\Restore directory.

## Using the Front Panel Keys

Used to enter the edit mode and confirm selection or entry.

Used to return to the previous menu screen or exit the edit mode without saving the latest entry.

Used to select items in the menu, move between values in a numerical address and modify numerical values.

For an example of this, turn to IP Address Setting Configuration in the Installation section.

## Restoring to Default Settings

1. Press Enter to display the Main Menu screen.
2. From the Main Menu screen, use the Up or Down arrow to select Commands.
3. Press Enter to confirm your selection.
4. From the Commands menu, use the Up or Down arrow to select Restore Defaults and press Enter.
5. From the Restore Defaults menu, use the Up or Down arrow to select Full Restore or Config Restore and press Enter.

   If you are performing a full restore, you will be asked to confirm this action on the following screen. At the Full Restore? prompt, use the Up or Down arrow to select Yes and press Enter to confirm.

   If you are performing a partial restore, you will be asked to confirm this action on the following screen. At the Config Restore? prompt, use the Up or Down arrow to select Yes and press Enter to confirm.

## What Does Config Restore Do?

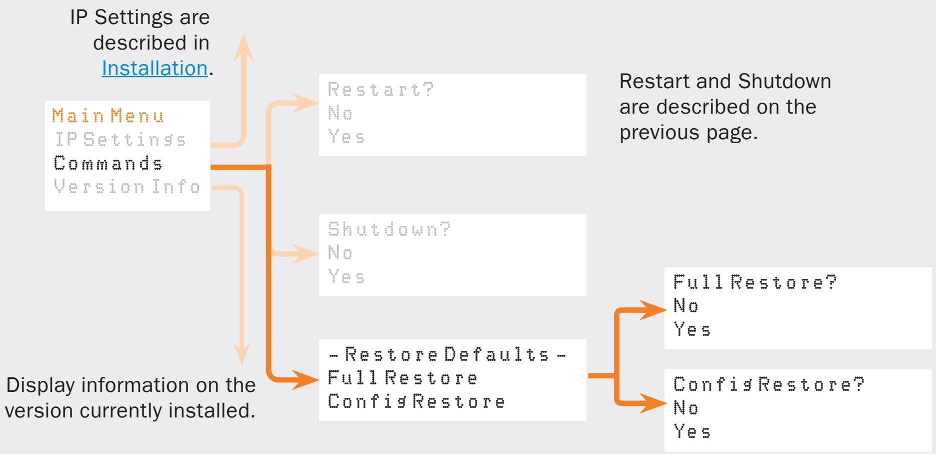
Deletes all user-created recording aliases, external media servers, call configuration files and templates and restores them to v.3.0 defaults.

## What Does Full Restore Do?

Deletes all user-created recording aliases, external media servers, call configuration files, categories and recording templates and restores them to v.3.0 defaults.

- Deletes all conferences and media files.
- Deletes all server logs.
- If data location has been changed to an external storage location (NAS), a full restore will change the default storage location back to the Content Server.

## Command Menu Structure



TANDBERG
Content
Server

# Backing Up and Restoring the Content Server

This section describes the backup and restore procedures for the TANDBERG Content Server. Please note that scheduled backup functionality is only available in version 2.3 or higher. This document covers version 3 of the TANDBERG Content Server Adminstrator Guide.

# Backing Up Your Content Server

## About Backing up

The backup procedure described here will back up your application, database, media and all settings.

This full backup differs from the partial backup tool used in S2.0 which only backed up the database.

This procedure alllows you to make one-off as well as scheduled backups. We recommend regular backups, and making a special one-off backup before upgrading your Content Server.

It is very important to follow the restore procedure as described here, otherwise future upgrades may not work.

## Before You Start

Before attempting backup, check in Add/Remove programs that you have Windows Server 2003 Service Pack installed. Please ensure that Service Pack 2 is installed on the Content Server before proceeding with backup.

Visit http://www.tandberg.com/support/tandberg_device_security.jsp for instructions on how to install Microsoft Windows Server 2003 Service Pack 2 on the TANDBERG Content Server.

You will need a USB Hard drive with enough space for all files to be backed up. Check the total size of the files to be backed up on your Content Server (in My Computer). You can also back up to a network location.

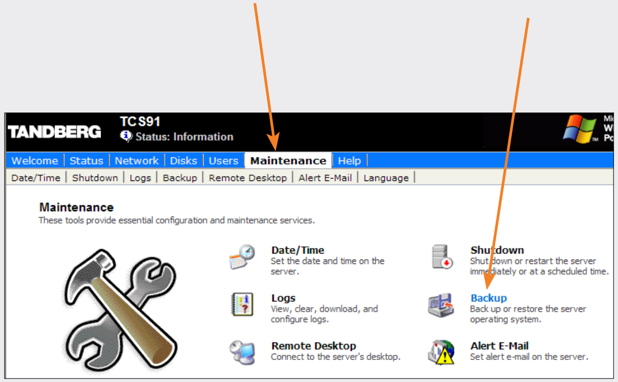
## The Backup Procedure

1. If you are not backing up to a network location, connect a USB hard drive to a USB port on the Content Server. If the USB device does not appear in My Computer, go to Computer Management and assign a drive letter which does not conflict with the existing drives (eg. F).

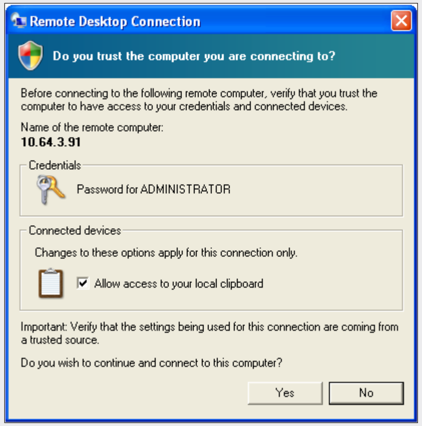
2. Login to the web interface using Internet Explorer and select Windows Server from the Administrator Settings menu.

   If you are not using Internet Explorer, you can also open the Backup Wizard from a Remote Desktop session. Go to Start > All Programs > Accessories > System Tools > Backup

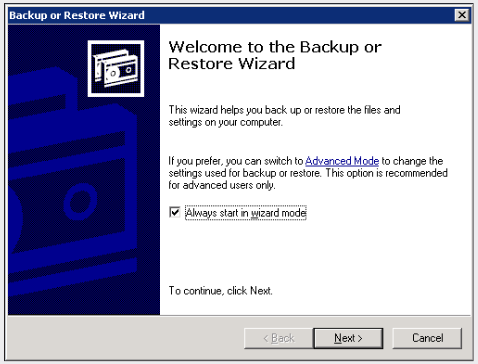
3. Click on the Maintenance tab, then select the Backup link.




4. Authenticate to open a Remote Desktop connection. If your Internet Explorer 7 settings prevent you from running Active X scripts, you may need to add the Content Server to your Trusted Sites list in IE.




5. Start the Backup and Restore Wizard.

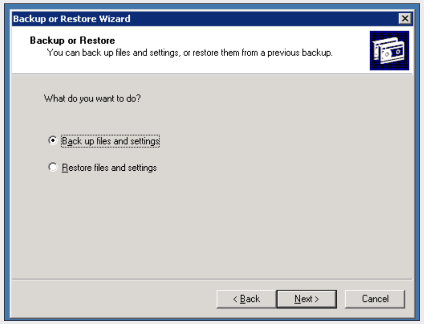



more...

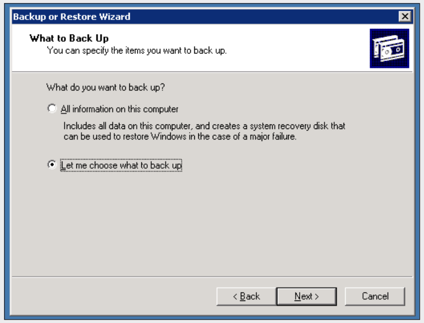
# Backing Up Your Content Server *cont.*

## The Backup Procedure *cont.*

6 Select Back up files and settings.

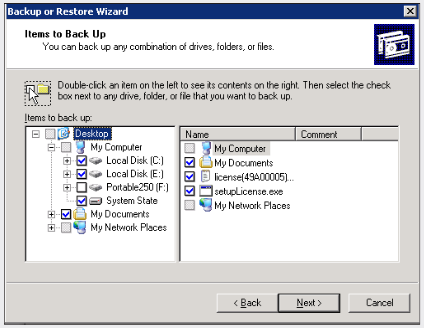



7 From the What to Back up screen, select Let me choose what to back up.




8 From the Items to back up screen, select the check boxes next to:

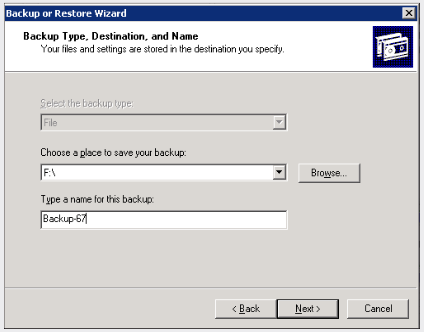
Local Disk [C:], Local Disk [E:] and System State




9 From the Backup Type, Destination and Name screen:

Browse to the network location or USB Hard Drive you want to use for your backup.

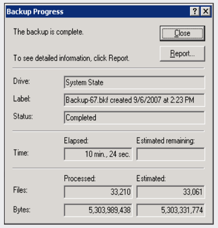
Type a name for your backup.




10 The below screen, Completing the Backup or Restore Wizard, will summarize your backup information. Click on Finish to start your backup.

11 The backup process takes approximately 10 minutes per 5GB of data.

Backup progress is reported on screen and a detailed report is provided at the end of the process.

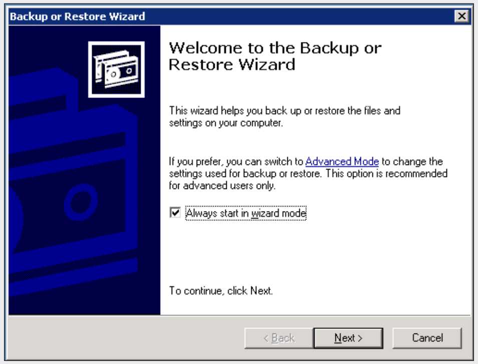



Your backup is now complete!

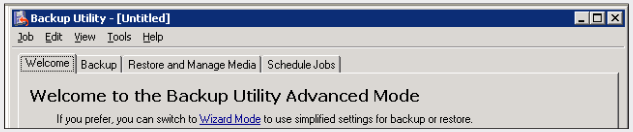
# Scheduling Backups

## The Scheduling Backup Procedure

1. Open the Backup and Restore Wizard as described on the previous pages. Select Advanced Mode.

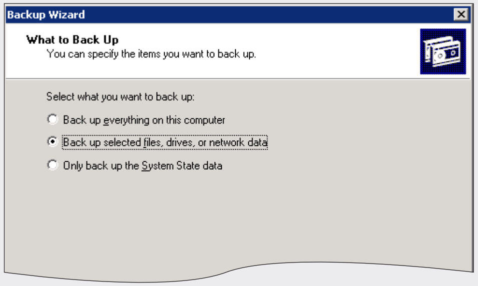



2. Click on the Schedule Jobs tab.

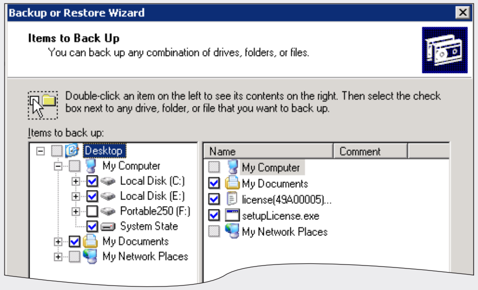



3. Click on the Add Job button.

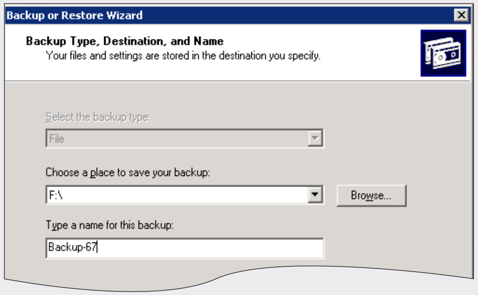
4. This will open the Backup Wizard. From the What to Back up screen, select Back up selected files, drive, or network data. Click Next.




5. From the Items to back up screen, select the check boxes next to: Local Disk [C:], Local Disk [E:] and System State.




6. From the Backup Type, Destination and Name screen: Browse to the network location or USB Hard Drive you want to use for your backup. Type a name for your backup.




more...

# Scheduling Backups... *cont.*

## The Scheduling Backup Procedure *cont.*

7. From the Type of Backup screen, select the type of backup from the following options:

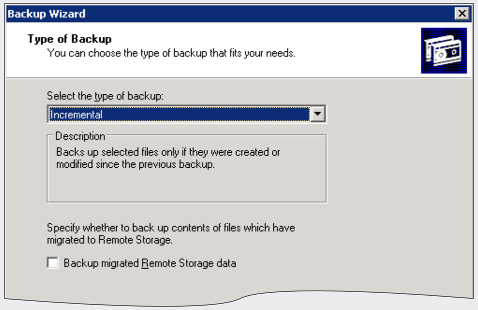
   Normal. Backs up selected files and marks each file as backed up

   Copy. Backs up selected files but does not mark any as backed up

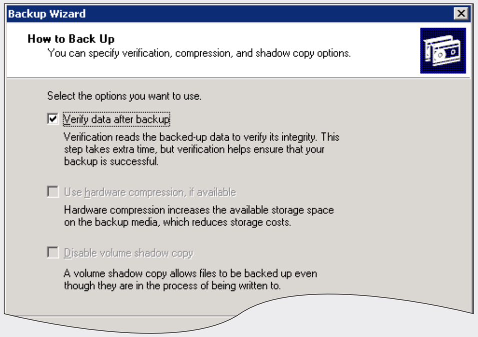
   Incremental. Backs up selected files only if they were created or modified since the previous backup

   Differential. Backs up selected files only if they were created or modified since the previous backup but does not mark them as backed up

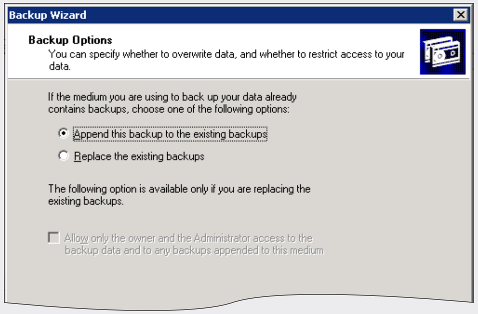
   Daily. Backs up only files that were created or modified today.



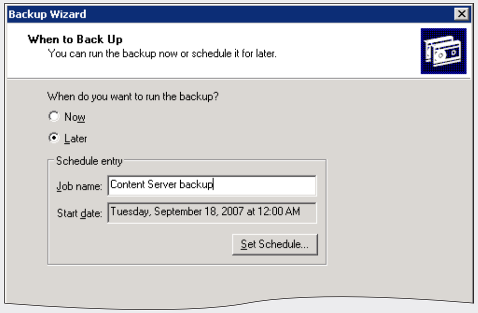

8. From the How to Backup screen, select Verify data after backup.



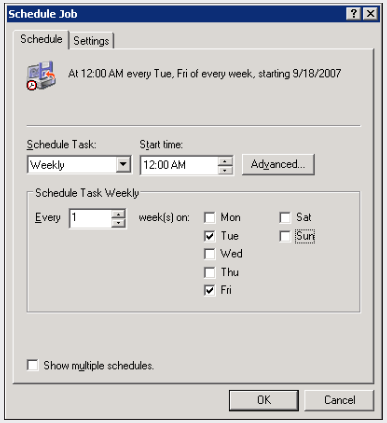

9. From the Backup Options screen, select Append this backup to the existing backups.




10. From the When to Backup screen, select Later and click on the Set Schedule button to make your scheduling selections.




Example settings are shown in this screenshot.

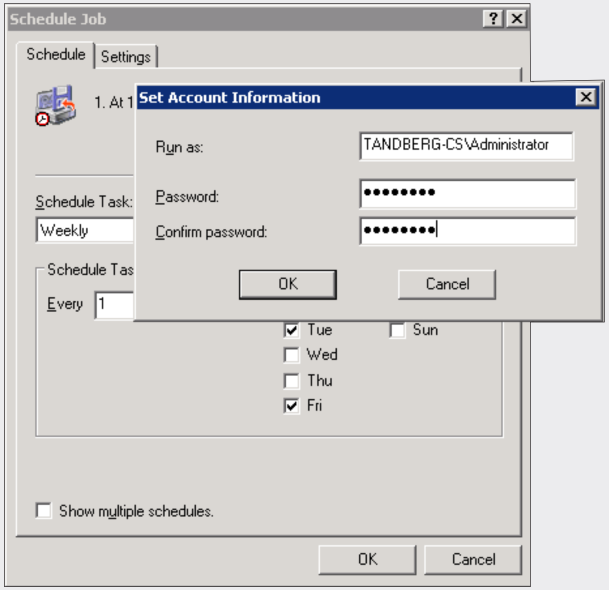



*more...*

# Scheduling Backups... *cont.*

## The Scheduling Backup Procedure *cont.*

11 After clicking OK, you will be prompted twice to supply the password for the account that the backup will run under.



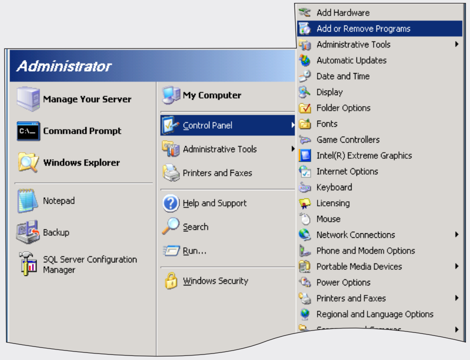

12 The below screen, Completing the Backup or Restore Wizard, will summarize your backup information. Click on Finish to schedule the backup

# Restoring your Content Server from Backup

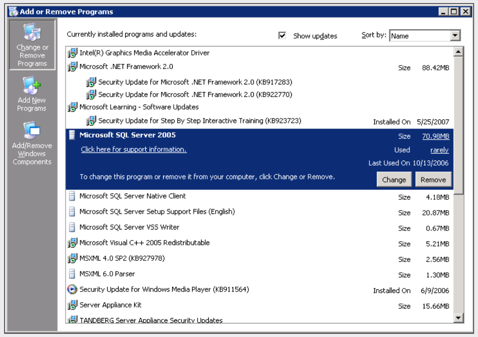
## The Restoring Procedure

**1** End any calls in progress and open Remote Desktop access to your Content Server.

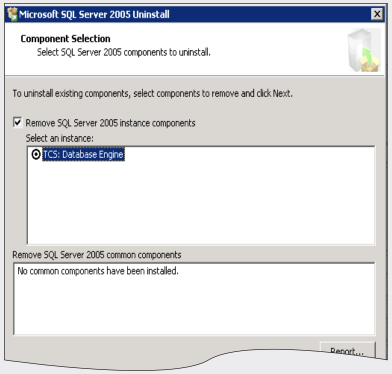
**2** Uninstall the TANDBERG Content Server. From Start > Control Panel, open Add or Remove Programs. Select TANDBERG Content Server and click on Change. At the following screen, select the Remove option.




**3** Uninstall the Microsoft SQL Server 2005. Select Microsoft SQL Server 2005 and click on Remove.




**4** In the following Component Selection screen, select TCS database Engine and click on Next.




**5** From the Add/Remove Programs, uninstall Microsoft SQL Server VSSWriter and Microsoft SQL Server Setup Support Files.

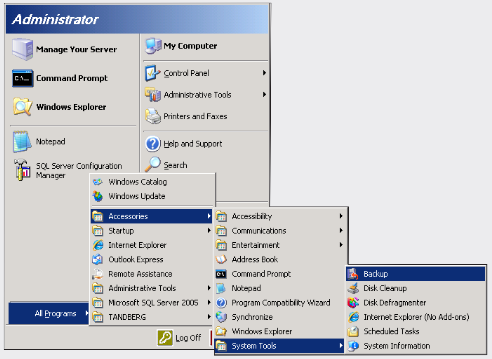
Browse to C:\Windows\Security

Look for files called edb*.log, there should be edb.log and at least one or two others maybe more (often called edbtmp.log or edb0000*.log).

DO NOT delete edb.log, but delete the other one or two files.

Not removing these files could result in future upgrades failing following the restore.

**6** Go to Start > All Programs > Accessories > System Tools > Backup.

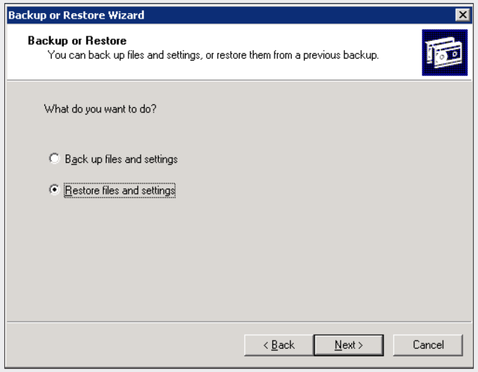



more...

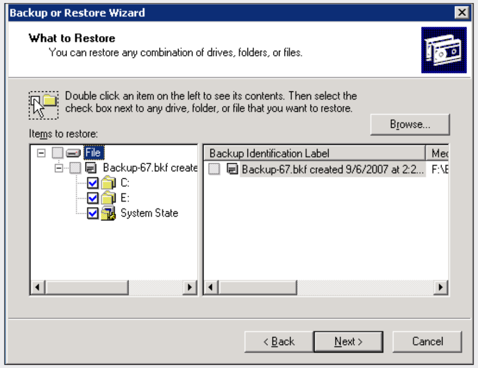
# Restoring your Content Server from Backup... *cont.*

## The Restoring Procedure *cont...*

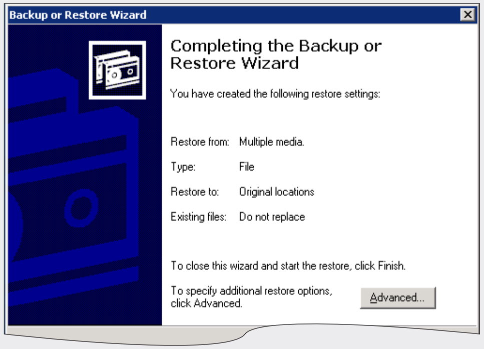
7. Start the Backup Wizard. Select Restore files and settings.



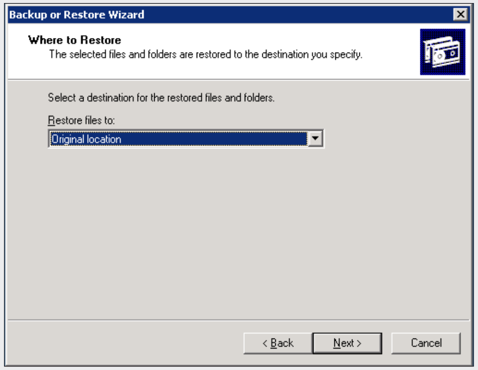

8. From the What to restore screen, select the check boxes next to: Local Disk [C:], Local Disk [E:], and System State



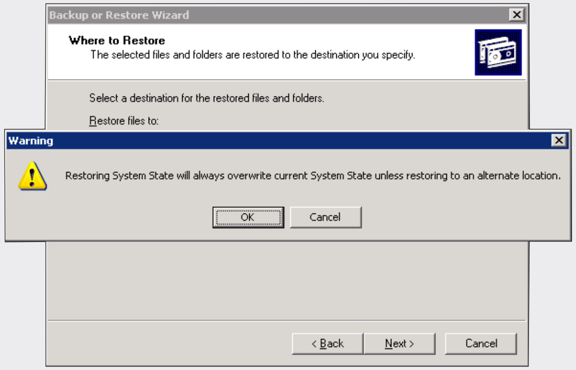

9. Click on Advanced... from the following screen, Completing the Backup or Restore Wizard.



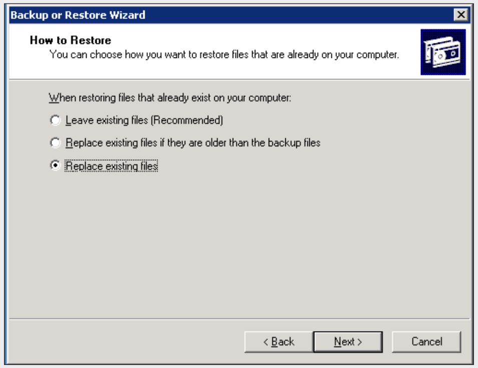

10. From *Where to restore* screen, leave the default setting—Original location.




11. Acknowledge the following warning about System State restore.




12. From the How to restore screen, select Replace existing files.

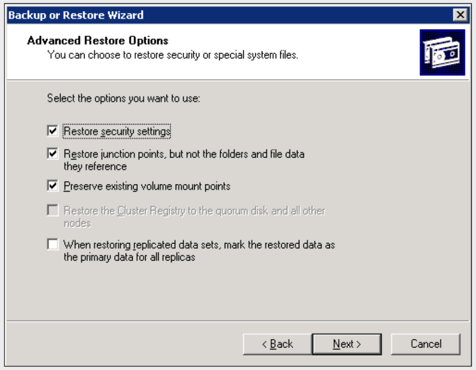



*more...*

# Restoring your Content Server from Backup... *cont.*

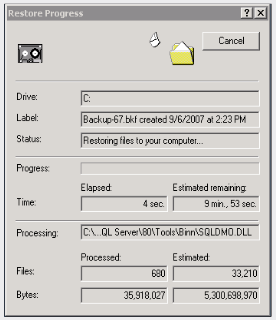
## The Restoring Procedure *cont...*

13 Leave the default options selected on the Advanced Restore Options screen.

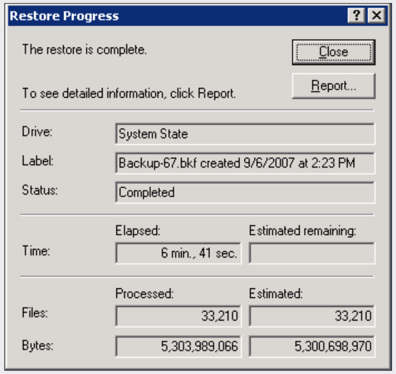



14 Click on Finish on the following screen, Completing the Backup or Restore Wizard to start the restore process.

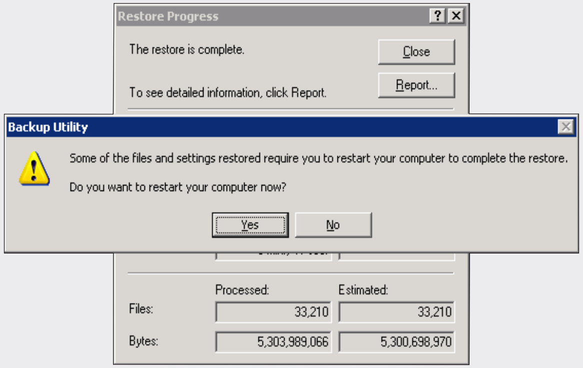
15 The progress of the restore is shown on screen.




16 Once the restore has completed, more detailed information can be obtained by clicking on the Report button.




17 YOU MUST RESTART THE COMPUTER AFTER THE RESTORE PROCESS.



TANDBERG
Content
Server

# Administrator Settings

This section describes all the options that appear under the Administrator Settings menu of the web interface.

These options allow you to configure the various settings and functions of the Content Server.

# Accessing Administrator Settings

## About Administrator Settings

The administrator needs to review the administrator settings and configure the settings based on the requirements of the installation site.

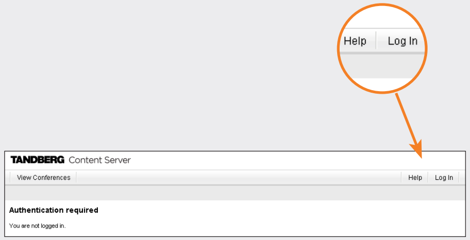
Configuration settings can be made via the Administrator Settings menu.

Factory default user name for the local administrator account is **administrator** and factory default password is **TANDBERG**. It is strongly recommended that you change the administrative password at setup time and before the Content Server is used for production.

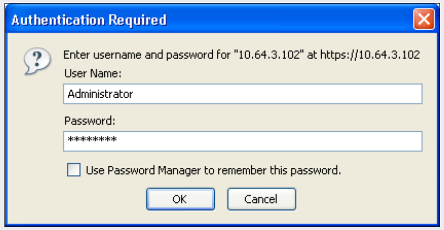
## Logging In to View the Administrator Options

1. Use a web browser to log in to the Content Server interface via http or https://<ContentServerIPaddress>.

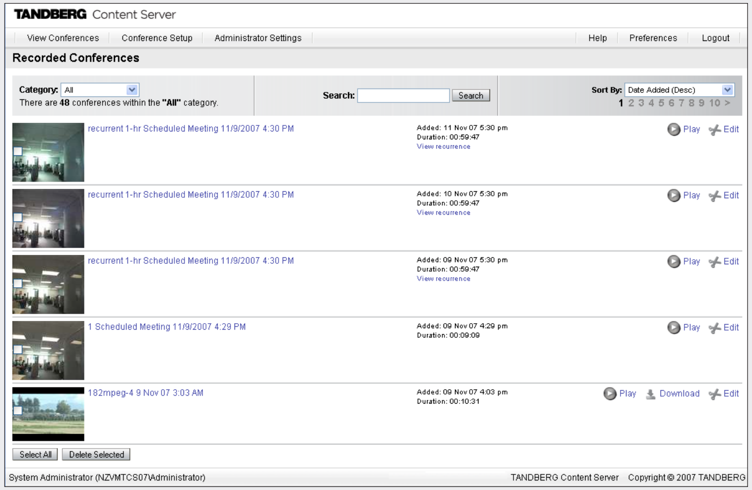
2. Click on Login.



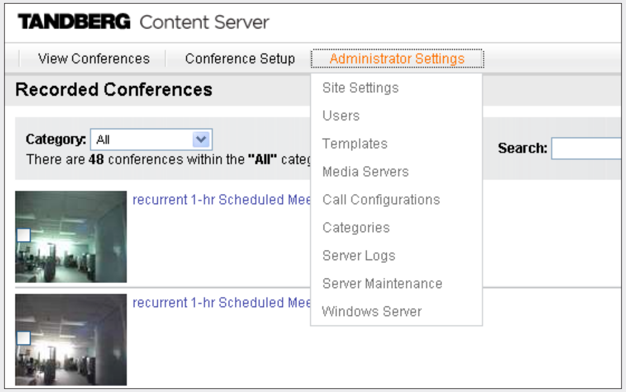

3. Enter your administrator user name and password.




4. Once successfully logged in, the screen will display your display name and user name at the bottom left of the screen, with menu items now available according to your login privileges.




5. Click on Administrator Settings to display the options available. These are described on the following pages.



# Site Settings

## About Site Settings

Administrators need to review configuration information in the Site Settings menu to ensure that the system is configured properly for their installation site.

All changes made in the Site Settings page need to be confirmed by clicking the Save button at the top or bottom of the page.

Site Settings contain:

- System Information
- Gatekeeper Settings
- Advanced H.323 Settings
- SIP Settings
- Authentication
- API
- User Properties
- System Defaults

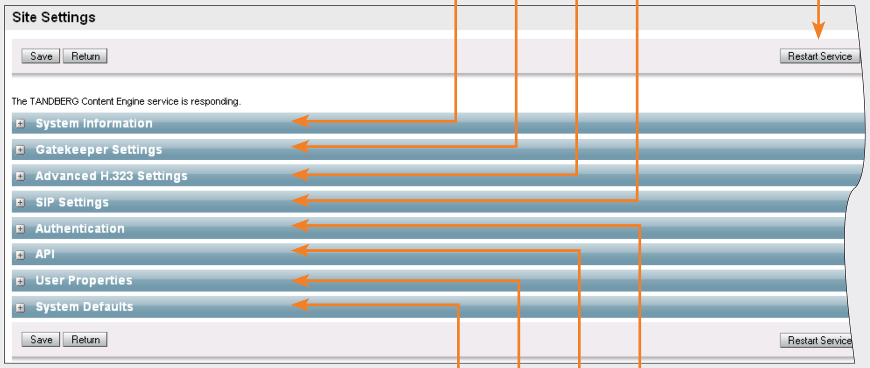
These are described on the following pages.

The [+] indicates that this topic is expandable in the usual way. Once expanded, the sign changes to [–] to show that the topic can be collapsed again.

If the Content Server is in a call, the administrator is unable to edit the current site settings. The Site Settings page will contain the text:

Cannot edit Site Settings—Content Server is currently in a call.

## The Site Settings options




See System Information section.

See Gatekeeper Settings section.

See Advanced H.323 Settings section.

See SIP Settings section.

If the TANDBERG Content Service is recording calls at the time, the site setting interface will indicate this and all site settings will be disabled except for the Restart Service button.

If you click on the Restart Service button while the Content Server is in call, the following message will be displayed:

If you restart the Content Server service, calls which are currently in progress will fail. Are you sure you want to restart?

Restart Service will terminate calls that are currently live (that is, the calls will be ended and conferences will not be available for on demand playback).

See Authentication section.

See API section.

See User Properties section.

See System Defaults section.

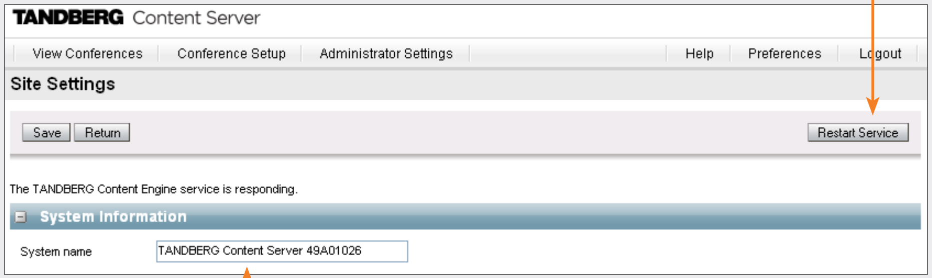
## System Information

Restart Service. This will terminate calls that are currently live (that is, the calls will be ended and conferences will not be available for on demand playback).

Before restarting the service, check if there are live conferences in progress in the Live Conferences page or check the call status on the LCD panel of the unit. The Site Settings page will also display a warning if calls are in progress. If you click on the Restart Service button while calls are in progress, you will be asked to confirm if you want to go ahead with the restart.

System Name. Enter the name for the Content Server.

The System Name is used in the TANDBERG Management Suite to identify added Content Servers. It is not the same as the S2 "System Name" as that was the H.323 ID.



## Gatekeeper Settings

Current Status. Displays the status of Content Server registration with the gatekeeper (registered or not registered).

Gatekeeper Enabled. Choose Enabled to register with the gatekeeper.

E.164 Alias. Other systems can call the Content Server using the E.164 Alias, if the Content Server is registered to the gatekeeper. The recording alias specified in the Default Recording Aliases will be used for the call.

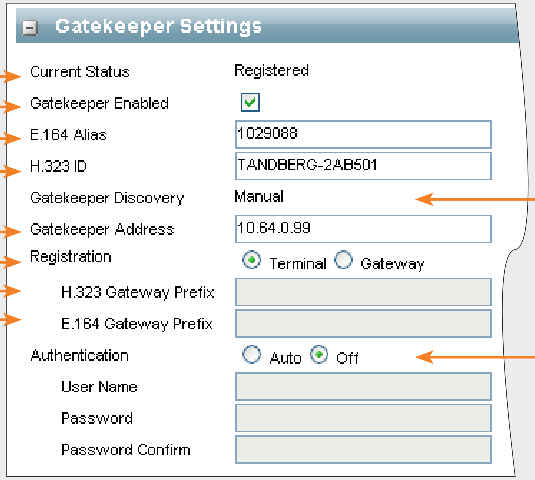
H.323 ID. Other systems can call the Content Server using the H.323 ID, if the Content Server is registered to the gatekeeper. The recording alias specified in the Default Recording Aliases will be used for the call.

Gatekeeper Address. This gatekeeper IP-address will be used to register the Content Server.

Registration. Choose to register the Content Server as a Terminal or as a Gateway.

H.323 Gateway Prefix. Alias prefix if registered as a gateway.

E.164 Gateway Prefix. Alias prefix if registered as a gateway.




Restart Service (see Site Settings) will terminate calls that are currently live (that is, the calls will be ended and conferences will not be available for on demand playback).

Before restarting the service, check if there are live conferences in progress in the Live Conferences page or check the call status on the LCD panel of the unit. The Site Settings page will also display a warning if calls are in progress. If you click on the Restart Service button while calls are in progress, you will be asked to confirm if you want to go ahead with the restart.

Gatekeeper Discovery Gatekeeper discovery is always set to manual on the Content Server. Manual gatekeeper discovery means that you will register with one specific gatekeeper, identified by its IP Address.

Authentication. By default, authentication is set to Off. If the gatekeeper requires that systems must authenticate with it before they are allowed to register, then change to Auto and supply the User name and Password that will be used by the Content Server.

User name. Enter the user name to authenticate toward the gatekeeper.

Password. Enter the password to authenticate toward the gatekeeper.

Password confirm. Re-enter the password.

# Site Settings

## The Advanced H.323 Settings

Use Static Ports is disabled by default. This means that the system will dynamically allocate which ports to use when opening a TCP/UDP connection.

Static ports can be enabled by selecting the checkbox and specifying the required range of ports.

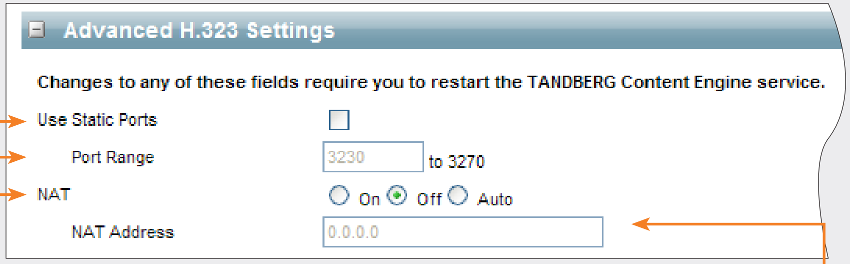
Port Range. 3230 to 3270 is the standard firewall port range. It needs to be configured according to your local firewall settings.

NAT. Network Address Translation is used when the Server is connected to a router with NAT support. The default setting for NAT is Off.

If NAT is On, the system will signal the configured NAT address in place of its own IP address within Q.931 and H.245.

If NAT is set to Auto, the system will try to determine whether the NAT address or the real IP address should be used for signaling. This is done to make it possible to make calls to endpoints on the LAN as well as WAN.

Changes to any fields in this section require you to Restart Service.




Restart Service. (see Site Settings) Restart Service will terminate calls that are currently live (that is, the calls will be ended and conferences will not be available for on demand playback).

Before restarting the service, check if there are live conferences in progress in the Live Conferences page or check the call status on the LCD panel of the unit. The Site Settings page will also display a warning if calls are in progress. If you click on the Restart Service button while calls are in progress, you will be asked to confirm if you want to go ahead with the restart.

NAT Address. The NAT address must be the global, external address to a router with NAT support. In the router, the following ports must be routed to the system's IP address:

- Port 1720
- The port range specified by the Port Range field, eg. 3230 to 3270.

Please contact your TANDBERG representative or authorized reseller for more information.

# Site Settings

## SIP Settings

Status. Displays the status of Content Server's registration with the SIP registrar.

Display name. Enter the Content Server's SIP display name.

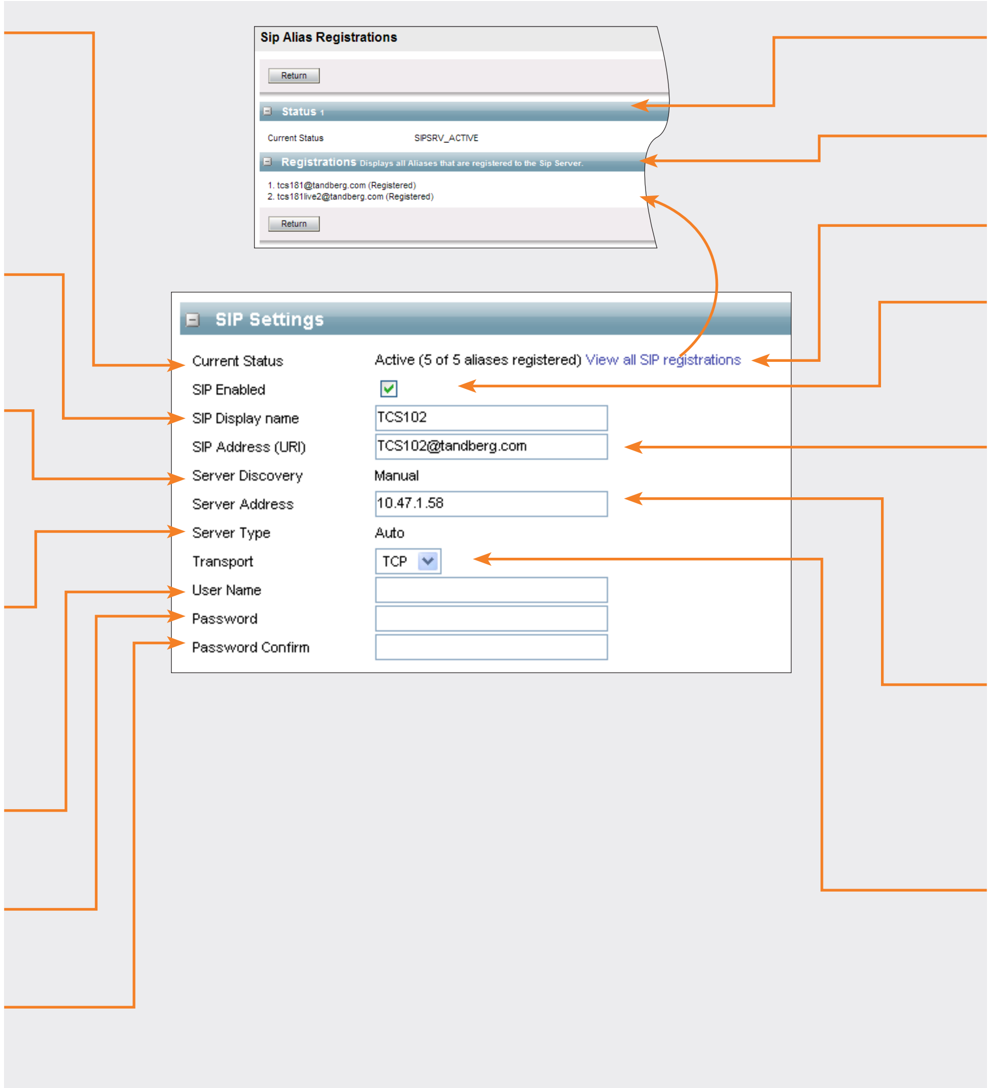
Server Discovery is Manual. The IP of the Server must be entered below.

Server Type. Select the type of SIP registrar. The default setting is Auto, which supports registering to standard SIP servers like OpenSer.

User name. Enter the user name to authenticate toward the SIP server.

Password. Enter the password to authenticate toward the SIP server.

Password confirm. Re-enter the password.




Status: Displays the status of Content Server registration with the SIP registrar.

Registrations: Displays all Aliases that are registered to the SIP registrar.

The clickable link View all SIP registrations link to the SIP Alias Registration screen.

SIP enabled. Select to enable registration with a SIP registrar.

SIP Address (URI). Other systems can call the Content Server using the SIP Address or URI (Uniform Resource Identifier) if the Content Server is registered to a SIP registrar. The recording alias specified in the Default Recording Aliases will be used for the call.

Server Address. Enter the IP address or a fully qualified domain name of the SIP registrar.

Transport. Choose the transport protocol for SIP. The default transport method is TCP (Transmission Control Protocol). UDP (User Datagram Protocol) can also be used.

## About Authentication

This section allows you to configure authentication modes for the Content Server. Authentication determines how users log in to the Content Server and the username and password that they must use. For more information, see also the Prompting Users to Log in section.

There are three modes of authentication supported by the Content Server:

- Local
- LDAP
- Domain

These are each explained in the section that follows.

Administrators and Owners always need to authenticate. Users wanting to view conferences can log in, or they can be given guest access to view some or all conferences without logging in. For more information on configuring guest access, see the User Properties section.

## Authentication Modes

### Local Authentication

In local authentication mode, only users with valid local accounts who have been added through the User Management page will be able to log in. Local authentication can be used if there are not a lot of users using the Content Server, since every account has to be manually set up through the Windows Server administration menu.

Both LDAP and Domain authentication methods require the details of a Microsoft Active Directory Server to be entered in the Authentication section. At this time, only Microsoft Active Directory Server is supported by the TANDBERG Content Server.

Clicking on the Save button (see Site Settings) will perform a check of the LDAP server settings as the Content Server attempts to bind to the LDAP server. Changes to Site Settings will not be saved if the LDAP settings entered are incorrect.

### Domain Authentication

Domain authentication can only be used if the Content Server has been added to a domain. If you add the Content Server to an existing domain, you need to define a separate security policy for the Content Server, otherwise the existing security policies may prevent the server from functioning correctly. Please contact your authorized TANDBERG reseller or partner for details of the recommended security policy settings.

Under Domain authentication, users with domain accounts and local users are able to log in. The local administrator account can be used to administer the server, or some domain users can be given administrative privileges.

### LDAP Authentication

LDAP authentication does not require the Content Server to be added to a domain.

Before changing authentication from local to LDAP, the local administrator must add at least one LDAP user with administrative privileges to the Content Server. To do this, go to User Management > Add Users and enter at least one valid username in the Add Administrators section.

Under LDAP authentication local users cannot log in using the standard login method. However, the local administrator can log in by adding the following string: #page:login&rescue:true to the end of the Content Server URL of the browser:

Example: The URL will look something like:

http://<ContentServerIPaddress>/tcs/#page:login&rescue:true

Hit the Enter key on your keyboard and log in with the local administrator account in the resulting pop-up window.

While it is possible for the local administrator to login using this method, it is more convenient to give an LDAP user account administrative privileges.

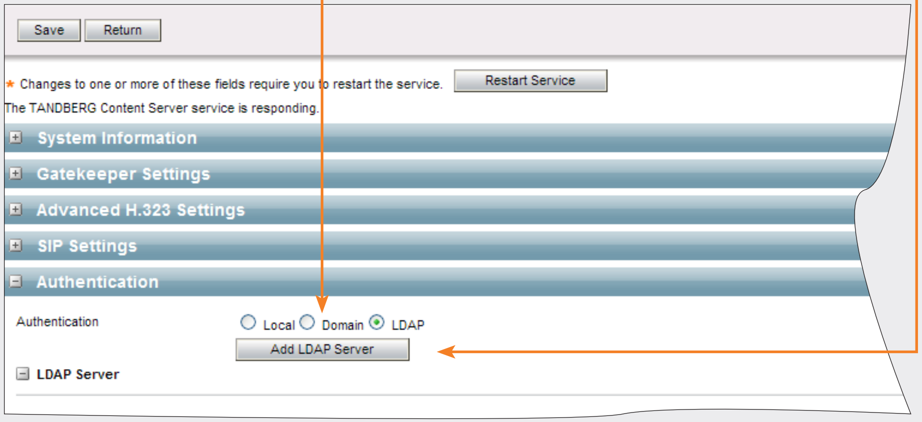
## Authentication Settings

Authentication. Choose the authentication method for the Content Server.

Local. If you select local authentication, only users with valid local accounts who have been added through the User Management page will be able to log in. Local groups are not supported.

Domain. If you select domain authentication, the Content Server must be added to the domain, and details of the LDAP server used for authentication must be filled out in the fields below.

LDAP. If you select LDAP authentication, details of the LDAP server used for authentication must be filled out in the fields below.




Add LDAP Server. Allows you to add up to four additional servers that the Content Server will look up to authenticate users.

This button is only active if you have selected Domain or LDAP as the authentication mode. In Local authentication, this button is greyed out.

# LDAP Server Settings

Server address. Enter the DNS name or IP address of your LDAP server. Only Microsoft Active Directory Server is supported for 3.x and 2.x versions of the Content Server.

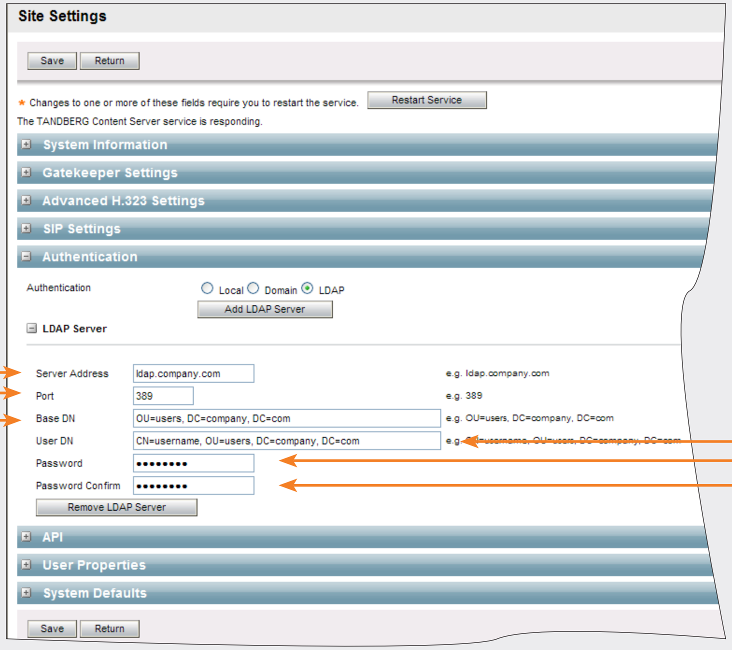
Port. Port 389 is the default port for most Domain Controllers. Global Catalog Servers may use port 389 or 3268.

Base DN. This is the search base which the Content Server uses to search for user records. The Content Server will search the object specified by the Base DN (Distinguished Name) and any objects beneath it.

The Base DN is a unique name for this container. It consists of OU, CN, and DN components.

Base DN examples:
OU=employees,DC=company,DC=com OU=marketi ng,OU=employees,DC=company,DC=com

In the examples above, OU 'marketing' is contained within the OU 'employees', so OU=employees,DC=company,DC=com will identify all employees of the company including the Marketing department, and OU=marketing,OU=empl oyees,DC=company,DC=com will identify users from the Marketing department only.




User DN. This is the LDAP identifier of the account in your domain which the Content Server will use to identify the user who is trying to log in. This account must have read membership privileges, that is, privileges to retrieve users' 'memberOf' attributes from Active Directory using LDAP. You can use an existing account or create a new special account with those privileges. This account does not need to be inside the search tree specified in Base DN.

The User DN (Distinguished name) is a unique name for this account. It consists of:

- CN (Common Name) of the special account
- OU (Organizational Unit)
- DC (Domain Object Class)

User DN examples: CN=user_account,OU=employee s,DC=company,DC=com CN=user_account,OU=ma rketing,DC=company,DC=com

Please note that DNs can have many more than four parts.

Password. Enter the password for the account identified above.

Confirm Password. Enter the password again to verify that it was entered correctly.

## API

The TANDBERG Content Server includes an Application Programmer Interface (API) which has been designed to provide mechanisms for external systems and services to get information from, and add information to the TANDBERG Content Server. The External Management API has been designed for integration with the TANDBERG Management Suite (TMS) but may also be of use with other management systems.

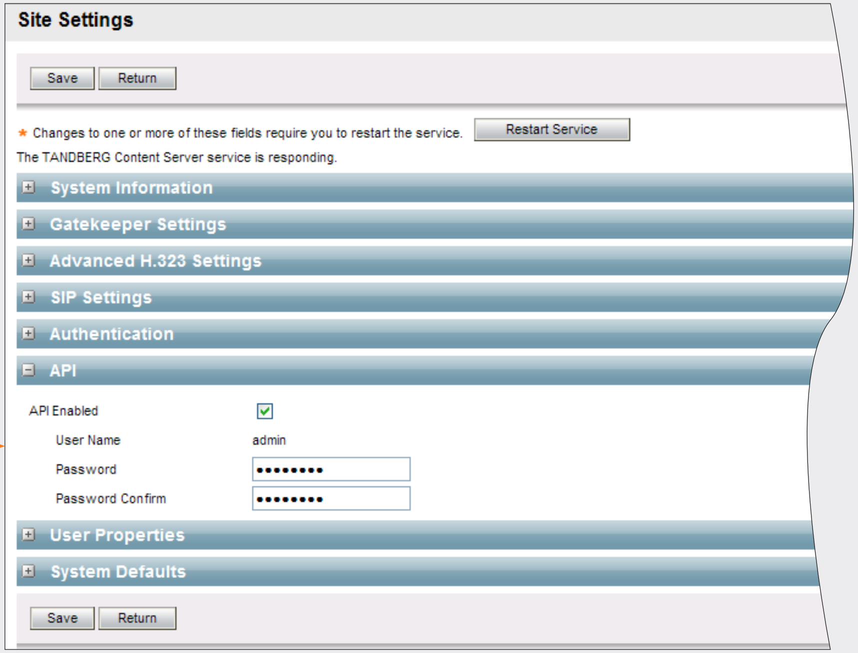
The API is enabled by default and must stay enabled in the following cases:

- If integration with TMS is required.
- If the API is used for customized integration with other systems. Refer to the TANDBERG Content Server API Documentation for details of available API calls.

If neither of the cases above applies, the API can be disabled.

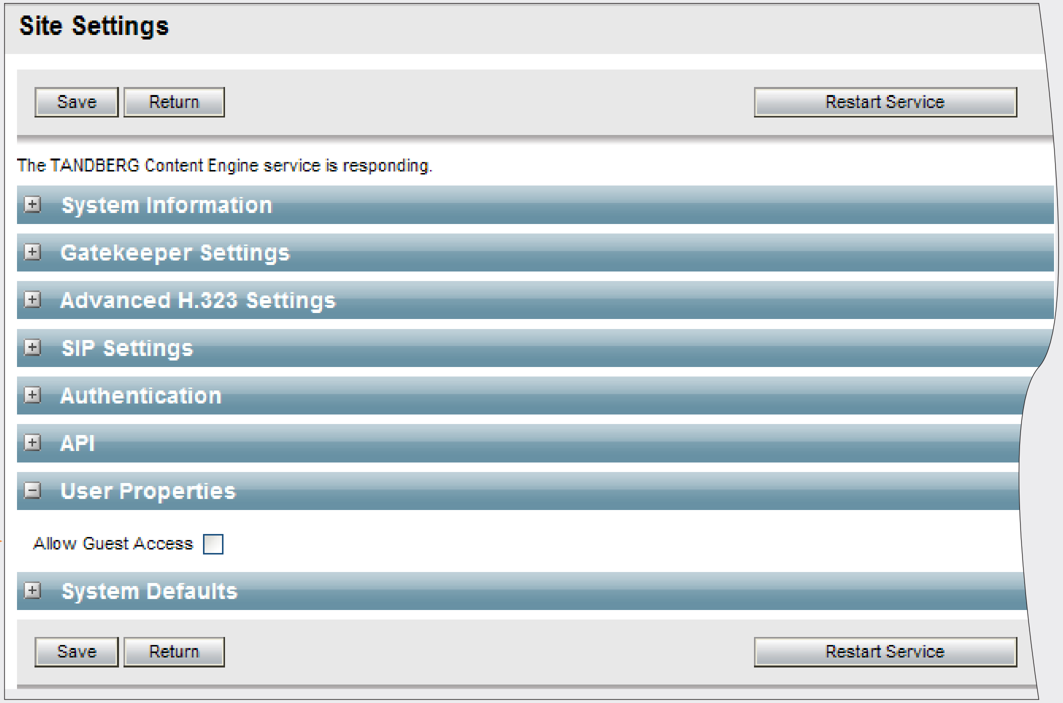
Refer to the TANDBERG Content Server API Documentation D1398002, for details of available API calls.

The default API password at install is **TANDBERG**. It is strongly recommended that you change this password if you want the API to remain enabled. If you clear the password and the password field is empty, API clients will not receive an authentication challenge.



## User Properties

Choose Allow Guest Access to enable access to the Content Server for guests. When this option is checked, users do not have to authenticate to view conferences. Guests can only view conferences that have Allow access to all users checkbox selected in Conference permissions.



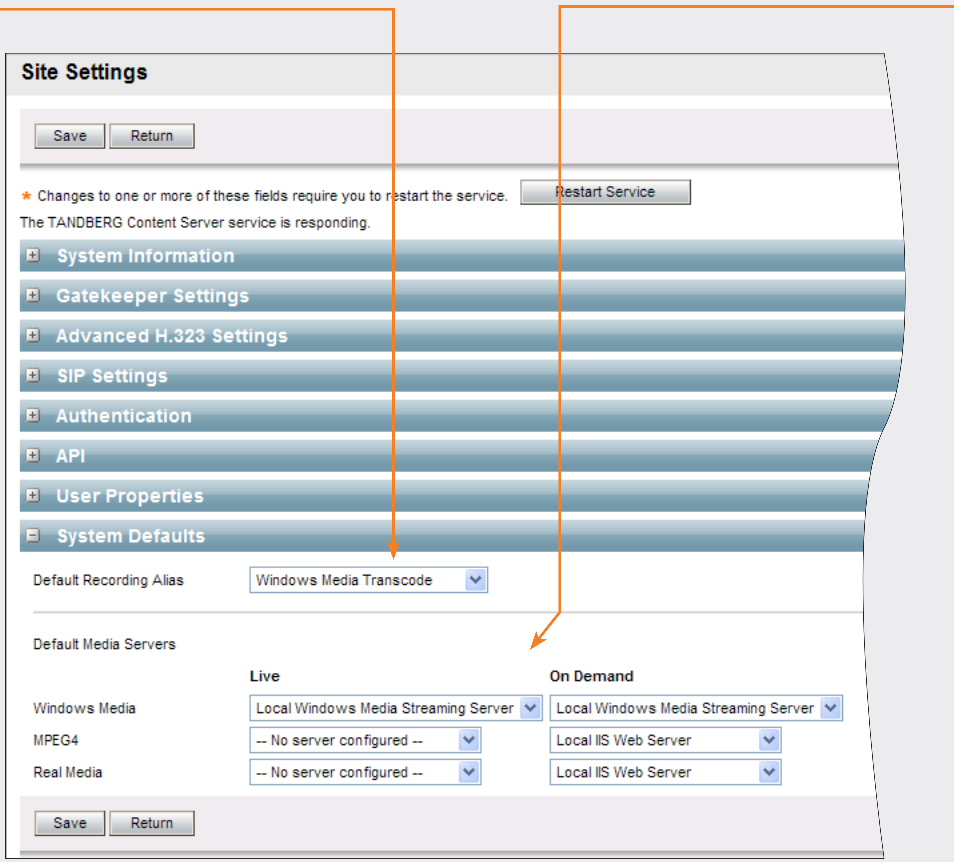
# System Defaults

Default Recording Alias. If the system E.164 alias, system name or content server IP address is called from an endpoint, the Recording Alias specified here will be used for recording and/or streaming the call.

The Recording Alias determines:

- The call settings, based on the call configuration specified in the alias.
- The outputs, based on the recording template specified in the alias.
- Access to the live and recorded conference.
- Conference password (optional).
- All conference metadata, such as the conference name, description, speaker, location, copyright and category specified in the Alias will be automatically applied to the conference and can be edited before the call is placed and also after the call has finished.

For more information on this – see Recording Aliases.




Default Media Servers. Servers specified in this section will be used by default in new templates.

- Live Windows Media. The Local Windows Media Streaming Server is used by default. An external streaming server can be configured in Media Servers and then selected as a default media server for streaming Windows Media live.
- Live MPEG4. By default, it is not possible to stream MPEG4 live off the content server. An external media server such as Darwin or QuickTime streaming server can be configured in Media Servers and then selected as a default media server for streaming MPEG4 live.
- Live Real Media. By default, it is not possible to stream Real Media live off the content server. An external media server such as a Helix streaming server can be configured in Media Servers and then selected as a default media server for streaming Real Media live.
- On Demand Windows Media. The Local Windows Media Streaming Server is used by default. An external streaming server can be configured in Media Servers and then selected as a default media server for streaming Windows Media on demand.
- On Demand MPEG4. By default, the Local IIS Web Server is configured to deliver MPEG4 media as a progressive download (http streaming). An external media server such as Darwin or QuickTime streaming server can be configured in Media Servers and then selected as a default media server for streaming MPEG4 on demand.
- On Demand  Real Media. By default, the Local IIS Web Server is configured to deliver Real Media as http streaming. An external media server such as a Helix streaming server can be configured in Media Servers and then selected as a default media server for streaming Real Media on demand.

## About Managing Users

The Users menu is used to add new users, change user privileges and delete users.

### GUEST ACCESS

The Content Server supports guest access to view conferences. If you want guest users to view conferences without having to log in to the Content Server:

- Select Allow Guest Access checkbox in Site Settings, and
- Select Allow access to all users checkbox in Conference permissions for all or some conferences.

With guest access, users only need to enter the Content Server IP address in their browser and they do not have to authenticate at all to view those conferences. In this case, you only need to add users who will have to authenticate (log in) to get special privileges, such as administrators and owners.

### AUTHENTICATED ACCESS

The Content Server also supports authenticated access to view conferences. If you want only authenticated users to view conferences, make sure that the Allow Guest Access checkbox is deselected in Site Settings . In this case, you have to add all users who need access to view, edit or administer content (through the Add Users page). If you select Allow access to all users checkbox in Conference permissions, those conferences will be available for viewing by all authenticated users.

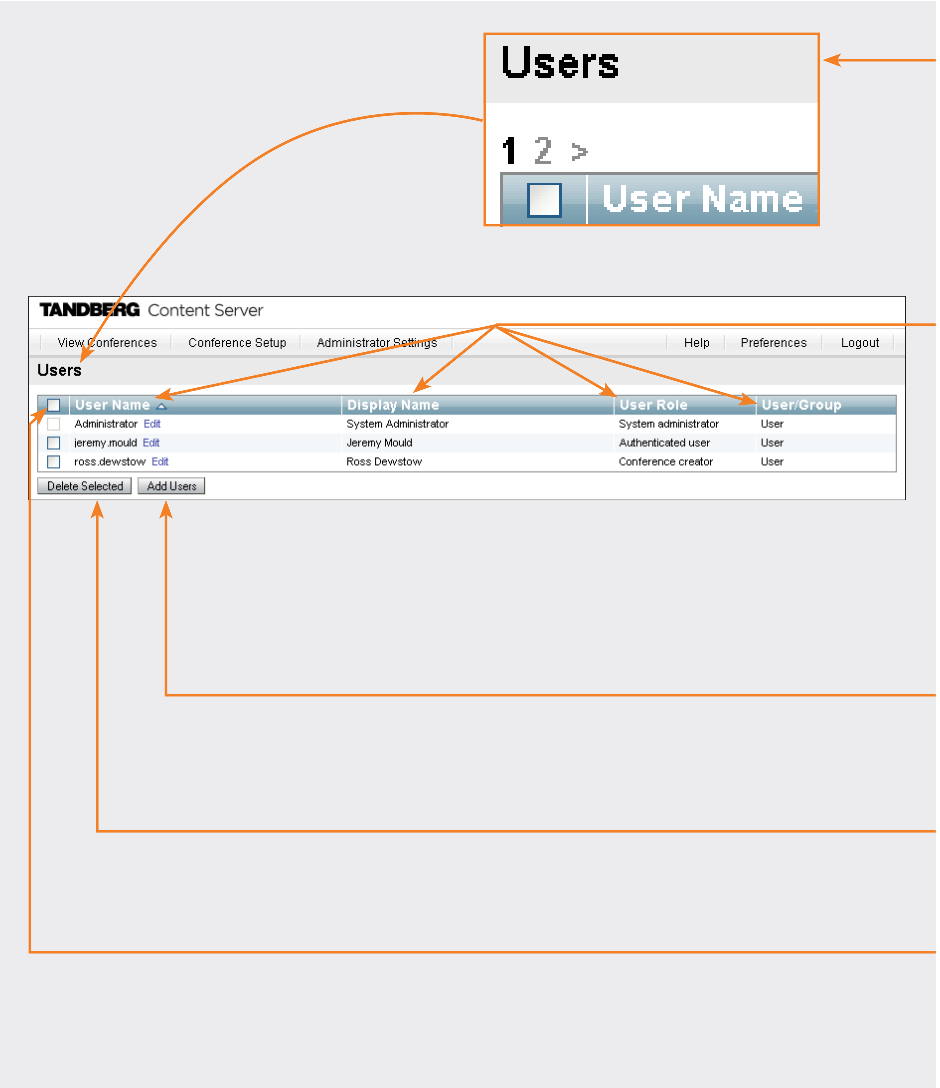
### AUTHENTICATED AND GUEST ACCESS

It is also possible to have a mixture of guest and authenticated access for viewing conferences. If you want some conferences to be available to everybody, and other conferences restricted to authenticated users:

- Select Allow Guest Access checkbox in Site Settings, and ...
- Select Allow access to all users checkbox in Conference Permissions for conferences you want guests to see.
- Add users and/or groups who need to login to the Content Server (through the Add Users page) and then enter user- or group names in Conference Permissions for conferences that only those authenticated users should be able to view.

Depending on the authentication method chosen in Site Settings, administrators can add local users (who have been created on the local computer) or users (or groups) authenticated via LDAP.

## Viewing the Users Page




There may be too many users to be displayed on a single page with the selected number of users displayed per page. Go to the other pages here.

By clicking on User Name, Display Name, User Role and User/Group, the sorting order will be displayed in either Ascending or Descending order, depending on the direction of the arrow next to the column name.

Click here to add new users. Details on this can be found on the next page.

Click here to delete the users selected.

Select users to be deleted. Use the checkbox above the column to select all users.

Greyed out boxes cannot be selected.

# About Adding Users



## Adding Users Under Local Authentication

If Local authentication is selected in Site Settings, local users can log in to the Content Server.

Firstly, you need to ensure that local user accounts have been created on the Content Server. You can create local user accounts from the Windows Server administration site in the Administrator Settings menu.

These users then need to be added to the Content Server database by entering their usernames on the Add Users page. Please note that adding local groups is not supported.

Local usernames must be entered in this format:

MACHINENAME\user.name:Display Name(optional)

## Adding Users or Groups Under Domain or LDAP Authentication

When Domain or LDAP authentication is selected in Site Settings, LDAP/Active Directory users or groups can log in to the Content Server.

Active Directory users can be added to the Content Server manually or automatically.

Groups need to be added manually. Any users in those groups will then be able to log in without having to be added individually. The user will inherit group privileges from the group they belong to.

## Adding Users Manually

LDAP/Active Directory users need to be added manually through the Add Users page before they can log in if:

- Domain or LDAP authentication is selected in Site Settings,

  and
- Allow Guest Access is selected in Site Settings.

Adding users under Domain authentication:

- Users must be entered in this format: DOMAINNAME\user.name or DOMAINNAME\user.name:Display name

Adding users under LDAP authentication:

- Users must be entered in this format: user.name or user.name:Display name

## Adding Users Automatically

All users with valid accounts on the Domain or LDAP server will be added automatically upon login if:

- Domain or LDAP authentication is selected in Site Settings

  and
- Allow Guest Access is deselected in Site Settings.

Users added automatically will only have privileges to view conferences they are authorized to view (their user role will be User). Administrators can give users special privileges by changing their role to Owner or Administrator).

## Adding Groups

Groups always need to be added manually through the Add Users page.

LDAP/Active Directory groups must be entered in this format:

@group.name

Please note that although a group is added in this format, @group.name, both the group name and its base DN are displayed in the Users page.

When adding a group, all members of that group will be automatically added to the Content Server on login with the privileges you assigned to the group, if Domain or LDAP authentication is selected in Site Settings, and regardless of whether or not Allow Guest Access is selected in Site Settings.

If you add a group with Owner privileges, as members of that group log in to the Content Server, their accounts will be automatically created. The User Role next to their user name in the Users page will appear to be User, but they will have Owner privileges inherited from their group membership.

If you want all members of the group to be Users or Owners, but some members of the group need administrative privileges, you can change the User Role for these members to Admin. The highest user role will be applied.

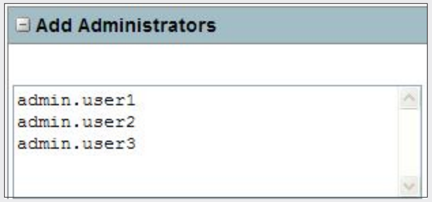
# Adding Users

## About the Add Users Page

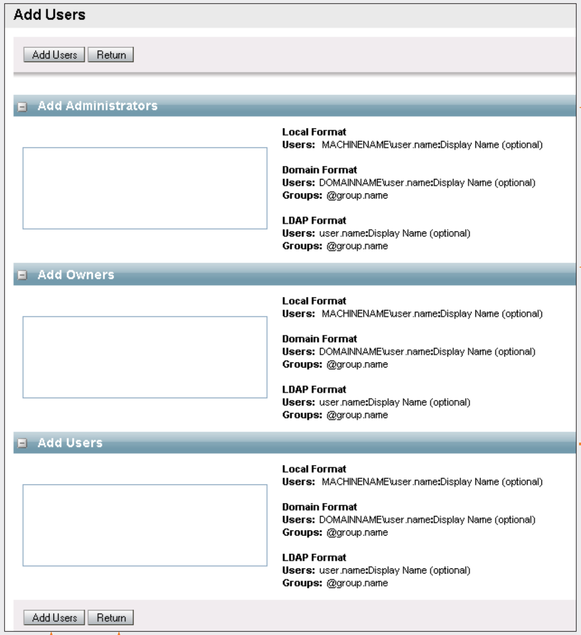
Use the Add Users page to add users to the system.

Users need to be added to the user database on the Content Server in order to log in.

To add users, enter one user name per line, or user names separated by a semicolon.



## Adding Administrators, Owners and Users




To ensure users have the right privileges, enter user names in the correct text field:

- Users entered in the Add Administrators text field will have administrative privileges.
- Users entered in the Add Owners text field will be able to make calls from the Content Server interface, edit personal recording aliases that they own and edit conferences they have recorded with a recording alias which gives them editor privileges.
- Users entered in the Add Users text field will be able to view conferences they have access to (these users will only see the View Conferences menu).

Click here to return to the Users page undoing any changes made.

Click here to add users to the database after you have entered the new users.

User names are not checked when they are entered on this page—you need to ensure that user details are correct, otherwise users will not be able to log in!

# Templates

## About Templates

The contents of a template determine how a videoconference is streamed/recorded by the TANDBERG Content Server.

The Content Server comes with a number of pre-defined templates that have no select box and so cannot be deleted. They can be edited and saved as new templates.

Templates that are used in a recording alias cannot be deleted. They are identifiable because their check box is greyed out.

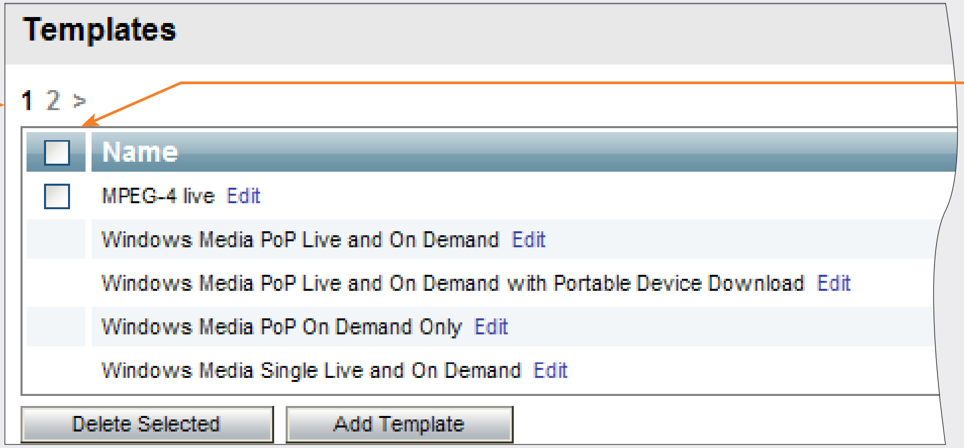
Administrator created templates can be edited, changed and saved or saved as a new template.

Options to think about for using existing, or creating new templates to produce the output required:

- What codecs or combinations of codecs are needed? Windows Media, Real Media or QuickTime?
- Is the conference needed to be streamed live or on demand or both?
- What sizes are needed for the outputs: audio, small, medium or large?
- Will there be any outputs for playback in portable devices?
- What layout do you want for playback in the viewer or for the portable device?

According to what answers are given to the above options, a recording/streaming template can be chosen from one of the existing system templates, one of the system templates can be saved as a new template, or a new template can be created.

## The Templates Page




There may be too many templates to be displayed on a single page given the preset number of templates displayed per page. Go to the other pages here. Check your Preferences to change the number of displayed Items Per Page.

Select templates to be deleted. Use the check-box above the column to select non-predefined templates. Predefined system templates cannot be deleted from the interface. Templates that are used in recording aliases cannot be selected or deleted from the list.

Click on the Add Template button to create a new template.

Click here to delete the templates selected.

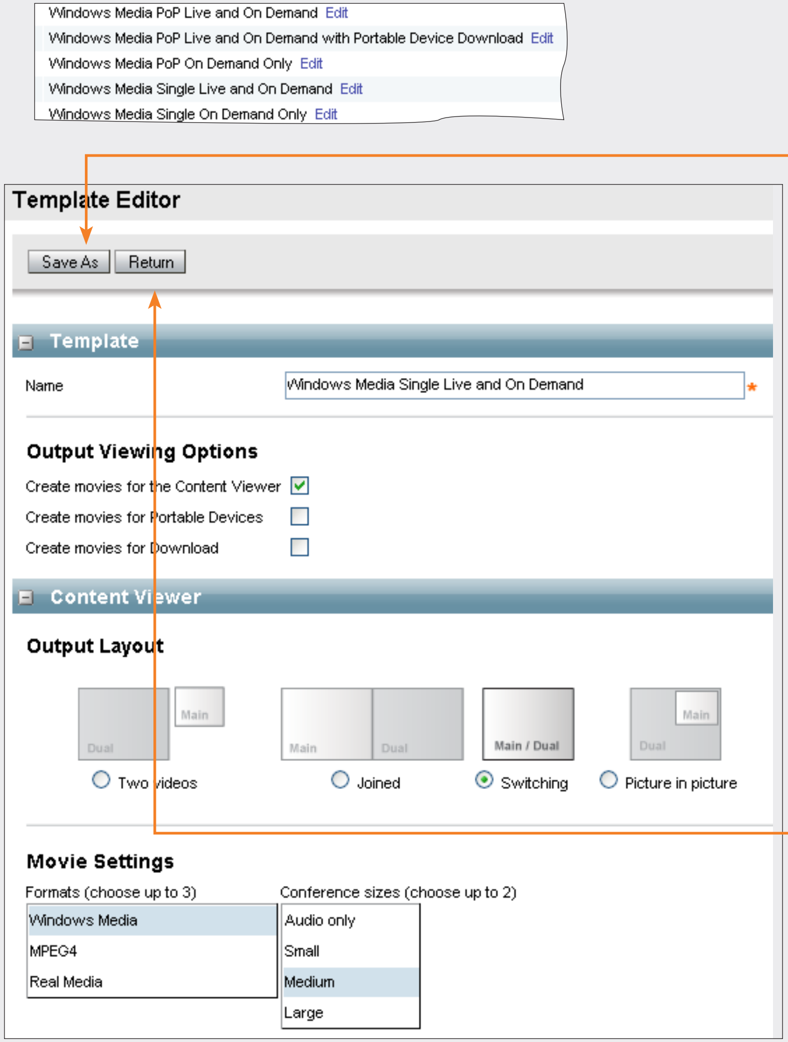
Any template can be edited and then saved with changes or saved as a new template. Templates that are being used in a call can also be edited for the next call.

# Editing Templates

## About System Templates

A number of System Templates are available with S3 (which is the TANDBERG Content Server version described in this document). System templates cannot be changed but they can be edited and then saved as a new template.

## The Template Editor



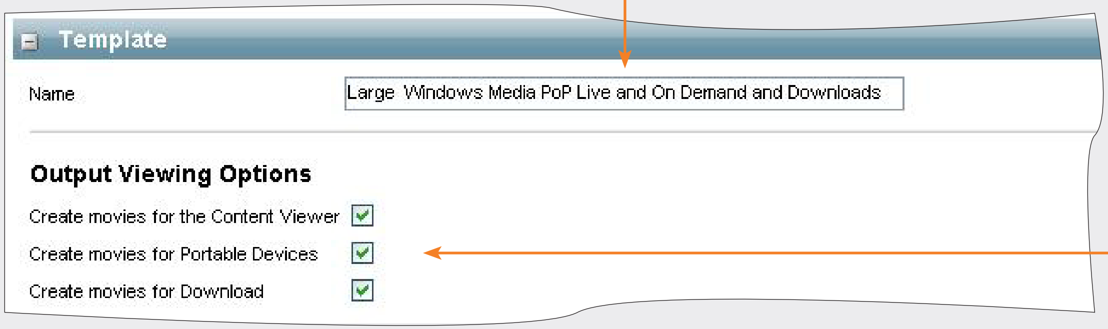

If changes are made to the template and you want to keep it, enter a new name for the template and click the Save As button. The new name will initially be called "Copy of ...". Enter a new name to reflect the changes in the template and save it.

Click Cancel to not save the changes.

The Template "Windows Media Single Live and On Demand" has been edited here to show this screen. Changes cannot be saved to these System Templates, but they can be saved as new Templates.

Clicking the Return button will take you back to view the list of templates.

## The Template Section




Name. The name of the edited template.

### Output Viewing Options

The Output Viewing Options allow you to chose the different ways in which conferences created using this template can be viewed by users.

The options are:

- Movies to be displayed in the Content Viewer
- Movies to be created for download to Portable Devices
- Movies to be created for download and playback on the User's computer

## The Content Viewer (I)

### Output Layout

The Output Layout determines the way in which conferences are streamed and played back.

Available options include:

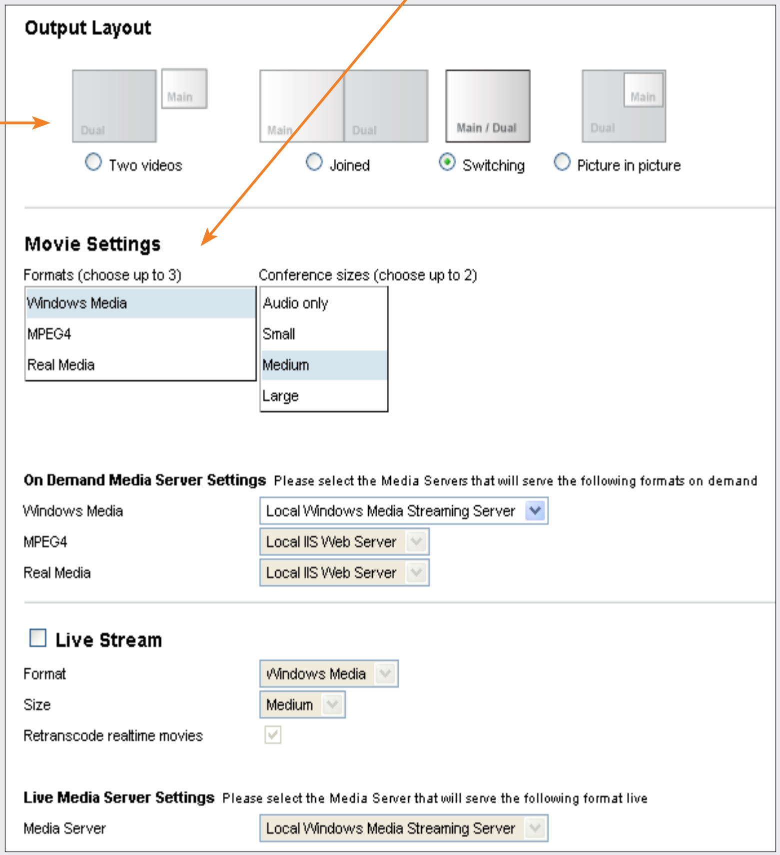
Two Videos—creates a video for the Main source and one for the Dual Source (VCR, Document Camera etc) for viewing in the Viewer. If Dual is not activated during the call, then only the Main Video will be available for On Demand playback. A dual stream will be displayed for Live conferences whether it is turned on or not.

Joined—creates one video output consisting of the main source on the left and the dual to the right joined as one video file. Dual will be displayed as a poster when it is not activated.

Switching—creates one video output. The Main video is replaced by the Dual when Dual is activated, then replaced by Main when Dual is stopped.

Picture in picture—creates one video with main inserted into the Dual. When Dual is activated, the Main video will transition to the selected location, displaying the Dual video. On turning off Dual, the Main will transition to take up the entire video.


For more information and examples of layouts, see also Presentation Window.


### Movie Settings

Formats. There are three formats available.

- Windows Media for playback using Windows Media Player on a Personal Computer
- MPEG4 for playback using QuickTime on a Macintosh
- Real Media for playback using Real Media Player.

## The Content Viewer (II)

### Movie Settings

**Conference Sizes.** You can select up to two conference sizes. Your selection of conference sizes in the Template Editor should be based on the end-user's streaming environment and Internet connection.

**Audio-only.** If your users have a very poor quality Internet access, choose 'Audio-only'. The average bit rate for streaming the conference will be around 35 kbps. Audio from the Main source will be recorded and played back, and if Dual Video is activated during the call, it will be displayed as still images.

**Small.** If your users have 64k modem access, choose 'Small'. The average bit rate for streaming the conference will be around 51 kbps.

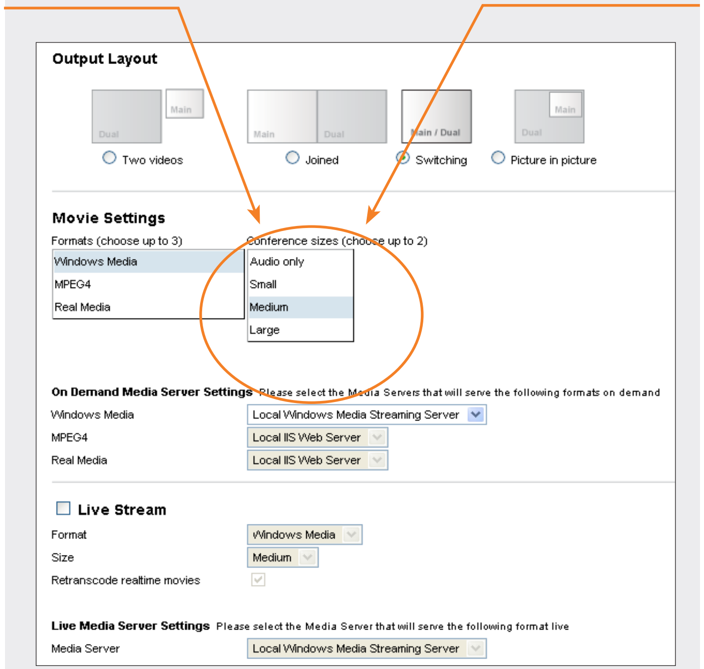
The resolution of the recorded video in the Switching layout will be up to 160x120 pixels (for QCIF, CIF, 2.5CIF and 4CIF calls) and 212x120 pixels (for w288p, w448p, w576p, 720p). In the Two Videos layout, Dual Video will be displayed as still images only.

**Medium.** If your users have broadband access to the Internet (around 500kbps), choose 'Medium'. The bit rate for streaming the conference will depend on the bandwidth of the call, but will be capped at 471 kbps. So, for example, a 128k call bandwidth will result in a 117kbps streaming bit rate for your conference, and a 384k call bandwidth will result in a 353kbps bit rate. All calls 512K and over will result in a 471kbps bit rate for your streaming conference.

The resolution of the recorded video will depend on the video format negotiated for the call as well as the call bandwidth, apart from QCIF calls, which will always get a 160×120 pixels resolution.

In the Switching layout, the resolution will be:

- 240×180 pixels for CIF, 2.5CIF and 4CIF calls made at or below 384k;
- 320×180 pixels for w288p, w448p, w576p, 720p calls made at or below 384k;
- 320×240 pixels for CIF, 2.5CIF and 4CIF calls made at or above 512k;
- 424×240 pixels for w288p, w448p, w576p, 720p calls made at or above 512k.




### Movie Settings

**Large.** If your users have access to a high-speed LAN, choose 'Large'. Beware, the bit rate for streaming the conference will depend on the bandwidth of the call, and can be as high as 1.76Mbps for a 1920k call. Users on broadband connections which cannot support this streaming bit rate will get a very poor streaming experience, with video buffering, stopping and starting (stuttering). This format also takes the longest to transcode.

The resolution of the recorded video will depend on the video format negotiated for the call as well as the call bandwidth, apart from QCIF calls, which will always get a 160×120 pixels resolution, CIF calls, which get 352×264 pixels and w288p calls, which get 512×288 pixels.

In the Switching layout, the resolution will be:

- 480×360 pixels for 2.5CIF and 4CIF calls made at or below 768k;
- 640×360 pixels for w448p, w576p and 720p calls made at or below 768k;
- 576×448 pixels for 2.5CIF calls made at or above 1152k;
- 576×448 pixels for 2.5CIF calls made at or above 1152k;
- 768×448 pixels for w448p, w576p and 720p calls made at or above 1152k.

**Large** and **Medium** sizes have been designed to provide the optimum viewing experience based on adaptive algorithms which are dependent on the video format negotiated during the call and the bandwidth of the call. Higher quality inputs with a large amount of data will result in a high resolution and high streaming bit rate outputs—e.g. a Large size Windows Media Switching layout template used in a w576p call made at a bandwidth of 1920k will result in a 768×448 video streaming at a bit rate of 1.76 Mbps. Lower quality inputs with less data will result in lower resolution and lower bit rate outputs—e.g. the same Large size template used in a 384k 4CIF call will result in a 480×360 video streaming at 353 kbps.

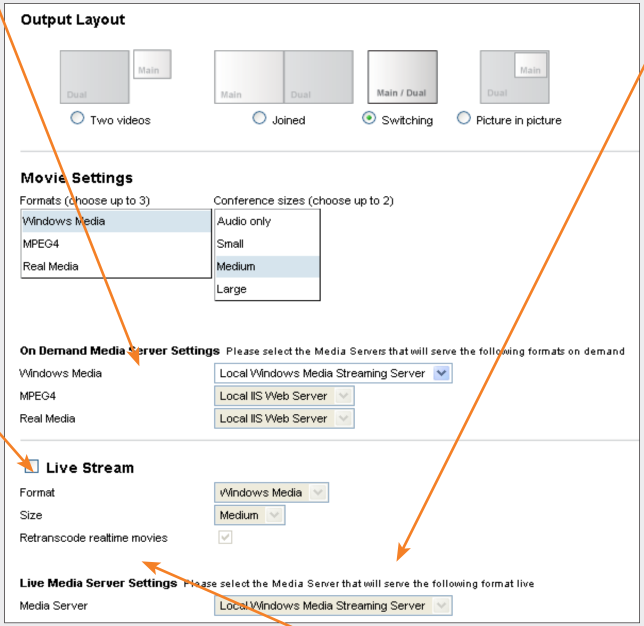
# Editing Templates *cont...*

## The Content Viewer (III)

### Movie Settings

On Demand Media Server Settings. Displays the default Media Servers selected in the System Defaults section of the Site Settings page, for the selected Formats. Select the Media Servers for On Demand viewing of the conferences recorded using this template. Non selected formats will be greyed out.

Live Stream. Choose if the Conference is to be viewed Live. Select the Format and Size if more than one is selected in the Movie Settings. Only one live stream is available per conference – other formats and sizes you selected in the template will be transcoded after the conference has finished.




Live Media Server Settings. Select the correct Media Server from the list for Live Streaming. If only one is set up, this will be selected. If none are set up, the following error message will be displayed: Your movie(s) will not be broadcasted live until you have a live enabled Media Server set up.

You will need to set up a Media Server for live streaming as described in the Media Server settings section.

Retranscode realtime movies. If this is selected, the Live movies will be transcoded again after the Live Conference has completed. This can result in better quality viewing but will also add extra processing and load on the Content Server.

If Retranscode realtime movies is not selected and playback of the Conference OnDemand is not satisfactory, the Live transcoded conference can be retranscoded from the Summary section of the Add Outputs screen.

# Editing Templates *cont...*

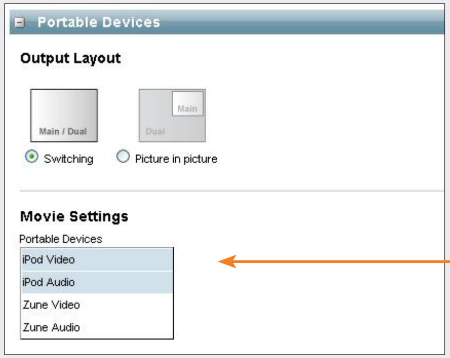
## The Portable Devices Section

This section will only be available if the Create movies for Portable Devices option was selected in the Output viewing options section.

### Output Layout

Switching—creates one video output. The Main video is replaced by the Dual when Dual is activated, then replaced by Main when Dual is stopped.

Picture in picture—creates one video stream with main picture inserted into the Dual. When Dual is activated, the Main video will transition to the selected location, displaying the Dual video. On turning off Dual, the Main will transition to take up the entire video. This layout can be restrictive when viewing on a small screen.




Movie Settings. Choose the outputs for your portable devices.

Options are:

- iPod Video
- iPod Audio
- Zune (Microsoft compatible) Video
- Zune Audio.

Once the Offline Transcoder has created the outputs, they will be available for Users from the Download link and icon on the Recorded Conference Listing page.

Users then copy the files to the correct folder for synchronizing with their Portable Device.

## The Download Section

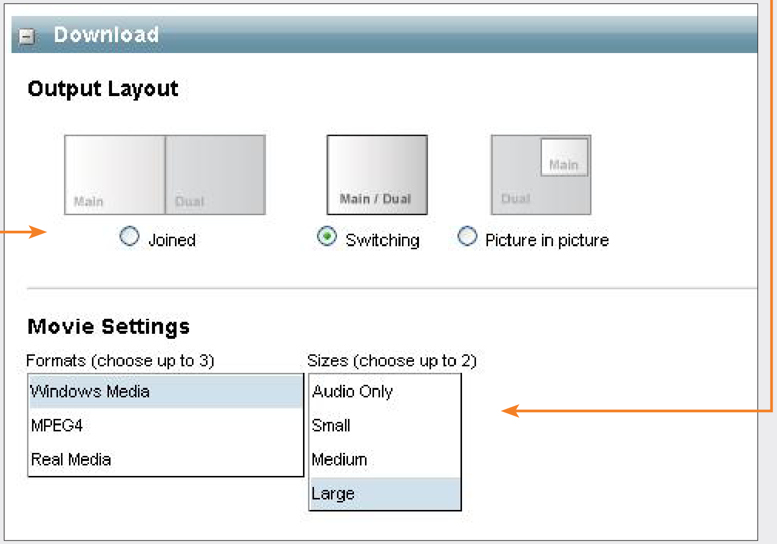
### Output Layout

These options will only be available if the Create movies for Download option was selected in the Output viewing options section.

Joined—creates one video output consisting of the main source on the left and the dual to the right joined as one video file. Dual will be displayed as a poster when it is not activated.

Switching—creates one video output. The Main video is replaced by the Dual when Dual is activated, then replaced by Main when Dual is stopped.

Picture in picture—creates one video with main picture inserted into the Dual. When Dual is activated, the Main video will transition to the selected location, displaying the Dual video. On turning off Dual, the Main will transition to take up the entire video.




### Movie Settings

Formats—there are three formats available. Windows Media for playback using Windows Media Player on a Personal Computer, MPEG4 for playback using QuickTime on a Macintosh and Real Media for playback using Real Media Player. Either 1, 2 or 3 formats can be chosen.

Conference Sizes—as files will be downloaded and viewed on a computer, the internet connection is not then an issue, other than the time it takes to download them. The advantage is for users with poor Internet connections as they can watch the files, once downloaded, without being connected to the Internet.

One or two sizes need to be selected to create an output to be viewed in the Player.

# Editing Templates *cont...*

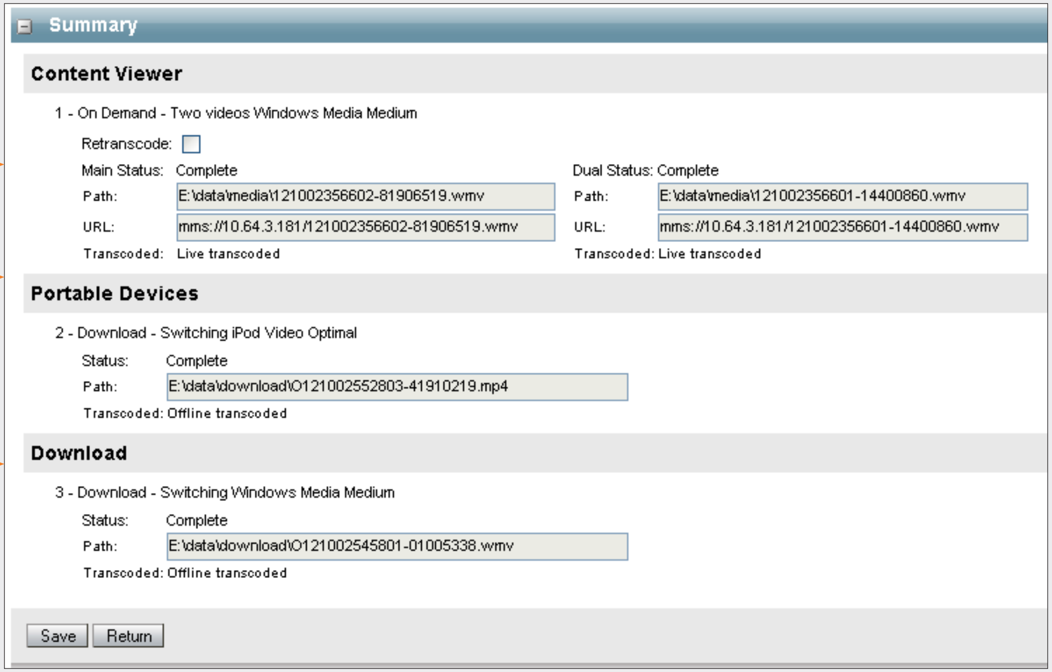
## The Summary Section

Viewer Summary. Displays the retranscode option if the Conference was only broadcast live. The Path and URL for the Live transcoded outputs for both Main and Dual videos are also displayed. If retranscoding has occurred, the information is repeated for the Offline transcoded videos.

Portable Devices Summary. Shows information about the outputs created by this template for Portable Devices. Displays the format for iPod and Zune Video as well as audio formats chosen as well as the Path to the file.

Download Summary. Shows information about the outputs created by this template for Download to a user's computer. Displays the Output layout, format and size for all the Downloads selected as well as the Path to the file.

There is a maximum of 6 outputs per Template. If the limit is exceeded, a message like "This template has 7 outputs. The maximum number of outputs for a template is 6. You must remove 1 output before you can save this template. See Summary for more information." will be displayed and the template cannot be saved if there are more than 6 outputs, so some will have to be deleted.

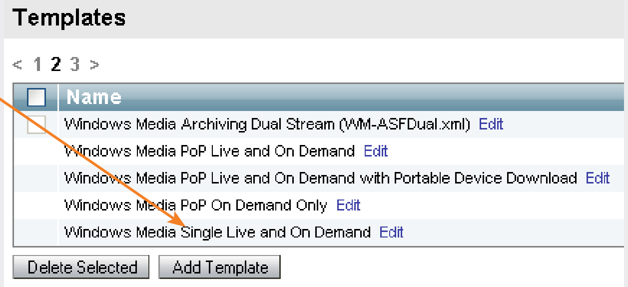


# Adding Templates

## The Template Editor

To add a new template, go to Templates menu item. You will be taken to the Templates page. Click the Add Template button at the bottom of the list of Templates.

This will take you to a blank Template Editor page. On this page you can configure the new template and then save it.



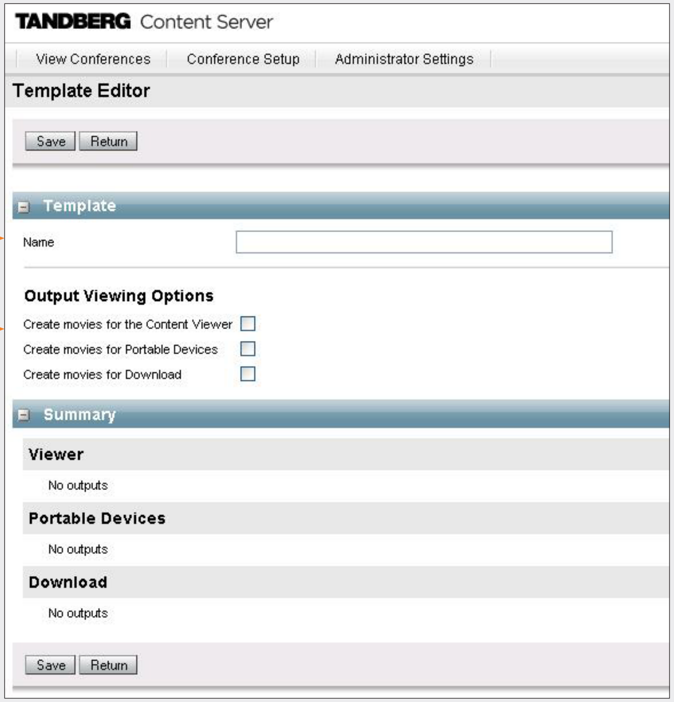

Enter the Name of the Template as meaningful as possible for the users who will be selecting Templates for their Personal Recording Aliases.

The Name does not need to detail the outputs that the Template will create as this information is displayed in the Recording Alias and Create Conference pages.

If none of the Create movies options are selected, the conference will be recorded to a file but no viewable outputs will initially be created. To create outputs from such a conference, Edit the Conference and choose the Add Outputs button. This allows an Editor to add viewable outputs to a completed conference that has been recorded.

To create outputs for this Template, choose one or more of the following options:

- Create movies for the Content Viewer
- Create movies for Portable Devices
- Create movies for Download
-




See the Editing Templates section for full descriptions of all the options available in the Template Editor page.

# System Templates

## About System Templates

The table shown here lists the default Windows Media System Templates that come installed with the Content Server.

## The System Templates Available

| Description | Recorded Output |
|---|---|
| Windows Media PoP Live and On Demand | Uses the Two Videos output consisting of a Main and a Dual. Conference size is Medium for both Live and On Demand. |
| Windows Media PoP Live and On Demand with Portable Device Download | Uses the Two Videos output consisting of a Main and a Dual. Conference size is Medium for both Live and On Demand. Also has downloadable Video outputs for Zune and iPod using the Switching Output. |
| Windows Media PoP On Demand Only | Uses the Two Videos output consisting of a Main and a Dual. Conference size is Medium for On Demand. No live output from this Template. |
| Windows Media Single Live and On Demand | Uses the Switching output. Displays Main but when Dual is switched on, Dual is displayed. Conference size is Medium for both Live and On Demand. |
| Windows Media Single On Demand Only | Uses the Switching output. Displays Main but when Dual is switched on, Dual is displayed. Conference size is Medium for On Demand viewing only. |

# Media Servers

## About Media Servers

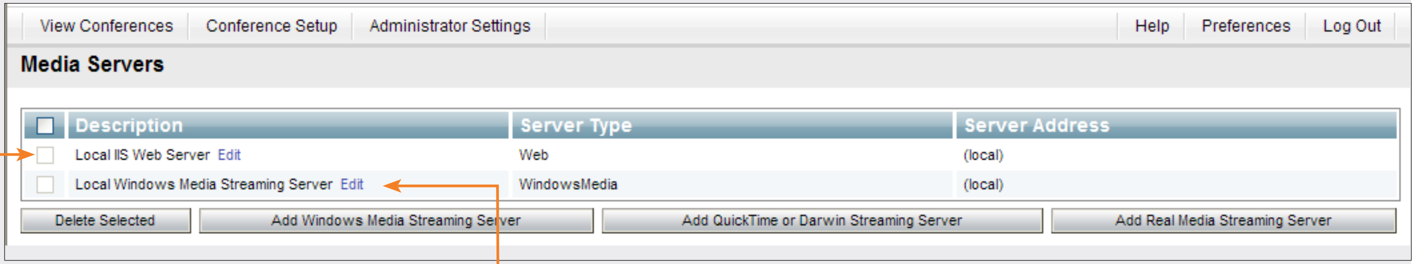
Use the Media Servers page to configure external streaming servers for live streaming and on demand playback of Windows Media, MPEG4 and Real Media.

External streaming servers configured here will be available when you create new templates or edit existing templates. You can also specify your configured servers to be the default servers for new templates.

The TANDBERG Content Server comes with two preconfigured default media servers which cannot be edited or deleted:

- Local IIS Web Server
- Local Windows Media Streaming Server

## The Media Servers Options




Local IIS Web Server. By default, this server is used to deliver MPEG4 and Real Media for on demand playback as a progressive download (HTTP or pseudo-streaming). It also delivers still images, if available. This server cannot be modified or deleted.

Local Windows Media Streaming Server. By default, this server is used for streaming Windows Media live and on demand. This server cannot be modified or deleted, but its properties can be edited and it can be saved as a new server.

# Adding Windows Media Streaming Server

## Configuration Options

Click on the Add Windows Media Streaming Server to create a new server for streaming Windows Media.

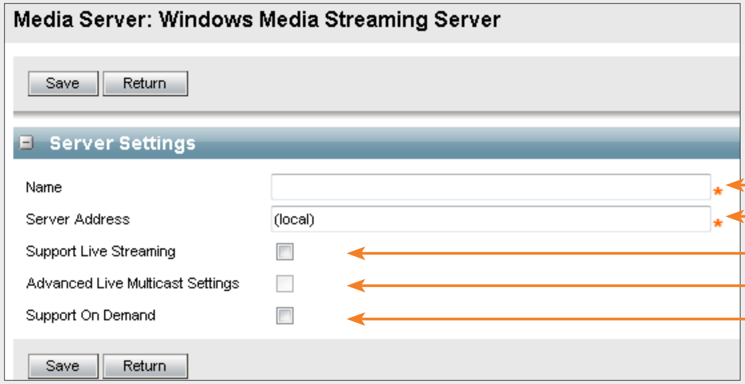
The configuration options for your Windows Media streaming server include live and on demand streaming.

Live streams can be sent to Windows Media Player clients using either a unicast or a multicast connection.

There are two options for configuring the Content Server for live multicast delivery:

- Multicast streaming on a dynamically assigned IP address. The Content Server will use the first two octets of the IP address specified in the Destination multicast IP address of the WMS Multicast Data Writer properties, but it will dynamically assign the last two octets, eg. if an IP address like 10.0.1.1 is specified, the Content Server may use any addresses in the 10.0 range for multicast streaming.
- Multicast streaming on a fixed IP address. If a Multicast IP address and port is specified in the Advanced Live Multicast Settings, the Content Server will stream to this IP address.

## Server Settings




Unicast is the default live streaming option for the default Local Windows Media Streaming Server. Unicast connections are one-to one connections between each Windows Media Player client and the server. Each unicast client that connects to the server takes up additional bandwidth.

In multicast delivery, the server sends only one stream which reaches all player clients at the same time. There is no additional overhead for the server regardless of whether one or more clients are connected.

Multicast delivery is generally used for broadcasting live streams on a corporate network and will only work if all routers on the network are multicast enabled.

### SERVER SETTINGS

Name. Enter a descriptive name for the server. The server name will be used in a template when selecting a media server. This field is required.

Server Address. Enter the DNS name or the IP address of the server. Use (local) if it is on this TANDBERG Content Server. This field is required.

Support Live Streaming. Select if the server is to support live streaming. Once selected the Media Server will be available to choose in the Live Media Server Settings for templates that stream Windows Media.

Advanced Live Multicast Settings. Select if you would like your multicast content to stream on a fixed IP address.

Support On Demand. Select if the server is to support on demand streaming. Once selected the Media Server will be available to choose in the On Demand Media Server Settings for templates that stream Windows Media.

# Configuring Windows Media Streaming Server

## Live Streaming Settings

### SERVER PUSH

Server push. Select this option if you want to push your live stream to an external Windows Media streaming server.

Port. Enter the port to be used with an external Windows Media streaming server. The default port if you are using the Content Server's Windows Media streaming server is 8080.

### PUBLISHING POINTS

Create new. Choose this option if you want the Content Server to create new publishing points on your external streaming server.

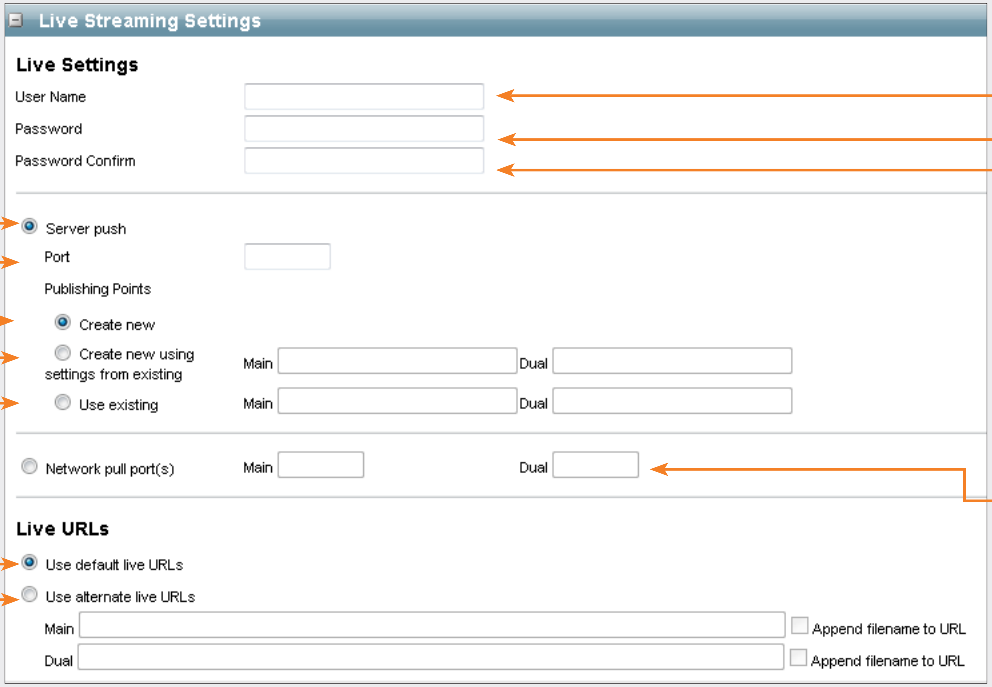
Create new using settings from existing. Choose this option if you want the Content Server to create new publishing points on your external streaming server, using the settings from existing publishing points. Enter the existing Publishing Points for your Main and Dual video streams (they can be the same in both fields).

Use existing. Choose this option if you have already set up publishing points on your external streaming server. Enter the existing Publishing Points for your Main and Dual video streams. There must be two different publishing points to stream one video stream off each.

### LIVE URLs

Use default live URLs. Choose this option to use the default live URL for this media server.

Use alternate live URLs. Choose this option to supply your own URLs for live streaming. Enter the URLs for Main and Dual video streams and choose whether you wish the filename (in this case the publishing point name) to be appended to the alternate URL.




### LIVE SETTINGS

User Name. Enter the user name to be used for authentication with your streaming server.

Password. Enter the password to be used for authentication with your streaming server.

Password Confirm. Enter the password again to confirm.

Network pull port(s). Select this option if you want the external server to request the stream. A network publishing point must be created on the external Windows Media streaming server to use this functionality. Enter the ports for network pull of Main and Dual video streams—select ports that are NOT being used by the Content Server (see the Appendix for a list of ports used by the Content Server).

# Configuring Windows Media Streaming Server

## Live Multicast Streaming Settings (streaming on a dynamically assigned IP address)

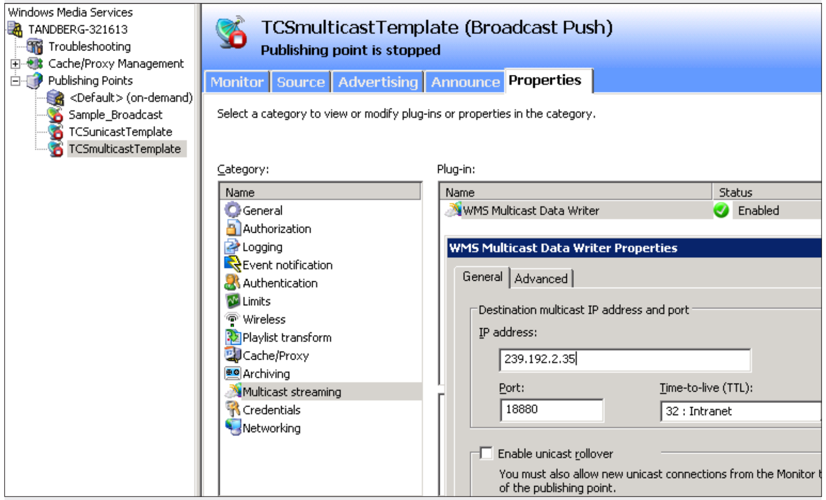
Before you can start delivering your live content as a multicast stream on a dynamically assigned IP address you need to:

1. Check the TCSmulticastTemplate publishing point and verify that the IP address under Destination multicast IP address and port is correct (or modify it if necessary).
2. Configure a multicast delivery server.

Once you have done that, you must add the multicast delivery server to your template in order to start using it.

### Check the TCSmulticastTemplate publishing point

1. Remote Desktop into your Content Server and choose Manage Your Server from the Start Menu
2. Click on Manage this streaming media server Expand the list next to the name of your streaming media server, then expand the list of Publishing Points
3. Select the TCSmulticastTemplate Publishing Point and click on the Properties tab.
4. Select Category Multicast streaming
5. Right-click on WMS Multicast Data Writer and select Properties from the drop-down menu.
6. Verify that the IP address under Destination multicast IP address and port is correct and modify it if necessary.




### Configure a multicast delivery server

Go to Administrator Settings > Media Servers to add a Windows Media Streaming Server and configure it as follows:

- Enter a descriptive name for the server
- Enter '(local)' in the Address field
- Select Support Live Streaming
- Select Server push
- Enter 8080 in the Port field
- Publishing Points: Select Create new using settings from existing and enter TCSmulticastTemplate in the Main and Dual fields
- Live URLs:
  - Select Use alternate live URLs and enter http://(local)/tcs/data in the Main and Dual fields.
  - Select the checkboxes to have file names appended to the URL

# Configuring Windows Media Streaming Server

## Live Multicast Streaming Settings (streaming on a fixed IP address)

Before you can start delivering your live content as a multicast stream on a fixed IP address you need to:

1. Configure a multicast delivery server.
2. Specify the Advanced Live Multicast Settings.

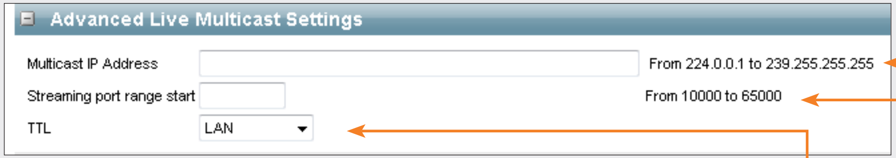
Once you have done that, you must add the multicast delivery server to your template in order to start using it.

### Configure a multicast delivery server

Go to Administrator Settings > Media Servers to add a Windows Media Streaming Server and configure it as follows:

- Enter a descriptive name for the server
- Enter '(local)' in the Address field
- Select Support Live Streaming
- Select Server push
- Enter 8080 in the Port field
- Publishing Points: Select Create new using settings from existing and enter TCSmulticastTemplate in the Main and Dual fields
- Live URLs:
  - Select Use alternate live URLs and enter http://(local)/tcs/data in the Main and Dual fields.
  - Select the checkboxes to have file names appended to the URL

### Specify the Advanced Live Multicast Settings




Multicast IP Address. Enter a destination multicast address. The range of allowable IP Addresses is from 224.0.0.1 to 239.255.255.255. The multicast address will depend on the configuration of the network.

Streaming port range start. Enter a port number for the start of the live streaming port range. The port range must be from 10000 to 65000.

TTL. Choose the multicast time to live (TTL) threshold. The "multicast TTL" tells the network how far multicast packets should be allowed to travel across the network. The default threshold is LAN (TTL=32). The value "Subnet" (i.e. TTL=1) means that packets do not pass the first network router. This setting should mean a multicast stream is viewable on any network, even those not enabled for multicast, where the client is on the same subnet as the Content Server. The efficacy of higher values WAN (64), Internet (128), Unrestricted (255) depends on the configuration of the network

# Configuring Windows Media Streaming Server *cont...*

## On Demand Settings

### MEDIA LOCATION

**Write movies to the default media location.** Select this option if you want your media to be written to the Content Server's default media location (you can check the default media storage location in the Server Maintenance page). The default media location for Windows Media files is (media location)\data\media.

**Write movies to an alternate location.** Choose this option if you want to write the media to an external streaming server using a shared drive or UNC path. Enter the shared drive or UNC path, e.g. //servername in the Alternate path field.

**FTP movies to location.** Choose this option to FTP the media files to the external streaming server once the call has ended.

**Server Address.** Enter the IP address or DNS name of the FTP server.

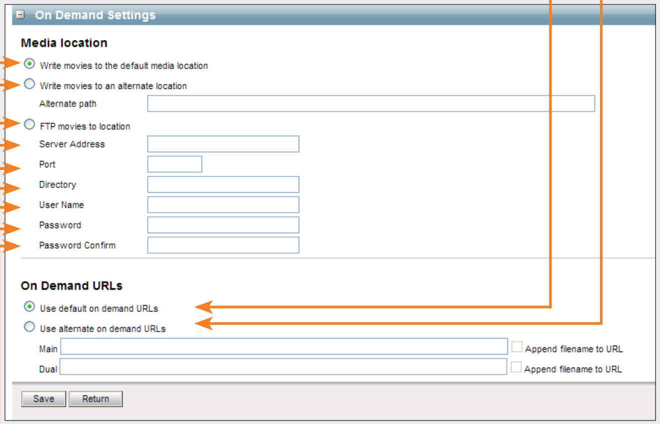
**Port.** Enter the port number of the FTP service. Most FTP servers will use port 21.

**Directory.** Enter the directory relative to the root FTP directory on the FTP server. Leave this blank to upload to the root FTP directory. The directory should be specified using forward slashes like in a URL, e.g. /movies/.

**User Name.** Enter the username to be used for authentication with the FTP server.

**Password.** Enter the password to be used for authentication with the FTP server.

**Password Confirm.** Enter the password again to confirm.




### ON DEMAND URLs

**Use default on demand URLs.** Choose this option to use the default on demand URL for this media server.

**Use alternate on demand URLs.** Choose this option to supply your own URLs for on demand streaming. Enter the URLs for Main and Dual video streams and choose whether you wish the filename to be appended to the alternate URL.

# Adding QuickTime or Darwin Streaming Server

## Configuration Options

The Content Server default installation supports only HTTP-based on demand streaming of MPEG4 from its local IIS Web Server. An external media server must be set up for live unicast and true (RTSP) on-demand streaming of MPEG4.

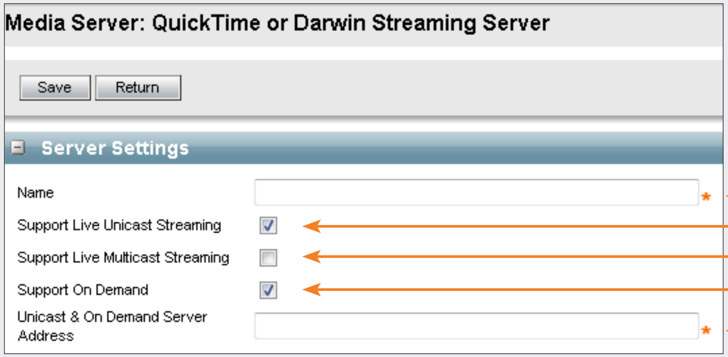
Click on the Add QuickTime or Darwin Streaming Server to configure an external server for streaming MPEG4 media.

The configuration options for your QuickTime or Darwin streaming server include live and on demand streaming.

There are two options for configuring the media server for live MPEG4 streaming:

- Live unicast streaming. This requires an external QuickTime or Darwin streaming server to relay streams to clients.
- Live multicast streaming. This option requires a Media Server to be set up on the Content Server but does not require an external QuickTime or Darwin streaming server to relay streams to clients - the multicast stream is sent directly from the Content Server.

## The QuickTime Or Darwin Streaming Server Settings




SERVER SETTINGS

Name. Enter a descriptive name for the server. The server name will be used in a template when selecting a media server. This is a required field.

Support Live Unicast Streaming. Select if the server is to support live unicast streaming. Once selected the Media Server will be available to choose in the Live Media Server Settings for templates that stream MPEG4.

Support Live Multicast Streaming. Select if the Media Server is to support live multicast streaming. Once selected the Media Server will be available to choose in the Live Media Server Settings for templates that stream MPEG4.

Support On Demand. Select if the server is to support on demand streaming. Once selected the Media Server will be available to choose in the On Demand Media Server Settings for templates that stream MPEG4.

Unicast and On Demand Server Address. Enter the DNS name or the IP address of the external streaming server. This is a required field.

Unicast connections are one-to one connections between each QuickTime Player client and the server. Each unicast client that connects to the server takes up additional bandwidth.

In multicast delivery, the server sends only one stream which reaches all player clients at the same time. There is no additional overhead for the server regardless of whether one or more clients are connected.

Multicast delivery is generally used for broadcasting live streams on a corporate network and will only work if all routers on the network are multicast enabled.

# Configuring QuickTime or Darwin Streaming Server



## Live Unicast Streaming Settings

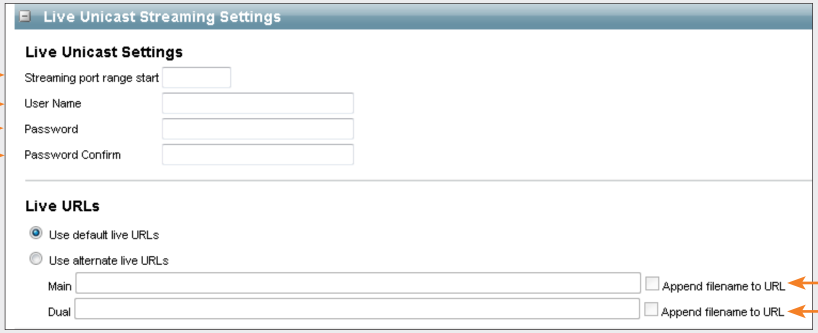
### LIVE UNICAST SETTINGS

**Streaming port range start.** Specify the start port for your streaming port range, e.g. 30000. The start port must be an even number. The Content Server will use the streaming start port + 30 to be used for streaming live calls, eg. a port range from 30000 to 30030. Ensure that you select ports that are NOT being used by the Content Server (see the Appendix for a list of ports used by the Content Server).

**User Name.** Enter the user name to be used for authentication with your streaming server.

**Password.** Enter the password to be used for authentication with your streaming server.

**Password Confirm.** Enter the password again to confirm.




### LIVE URLs

**Use default live URLs.** Choose this option to use the default live URL for this media server.

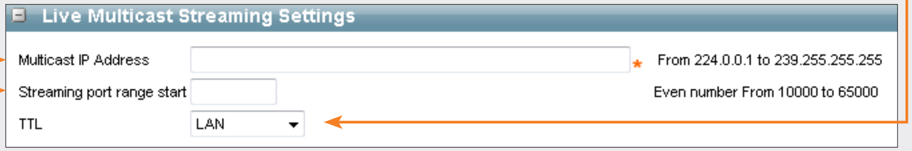
**Use alternate live URLs.** Choose this option to supply your own URLs for live streaming. Enter the URLs for Main and Dual video streams and choose whether you wish the filename (in this case the sdp filename) to be appended to the alternate URL.

## Live Multicast Streaming Settings

### LIVE UNICAST SETTINGS

**Multicast IP Address.** Enter a destination multicast address. The range of allowable IP Addresses is from 224.0.0.1 to 239.255.255.255. The multicast address will depend on the configuration of the network.

**Streaming port range start.** Enter a port number for the start of the Live Streaming Port Range. The port range must be from 10000 to 65000 and must be an even number.




**TTL.** Choose the multicast time to live (TTL) threshold. The "multicast TTL" tells the network how far multicast packets should be allowed to travel across the network. The default threshold is LAN (TTL=32). The value "Subnet" (i.e. TTL=1) means that packets do not pass the first network router. This setting should mean a multicast stream is viewable on any network, even those not enabled for multicast, where the client is on the same subnet as the Content Server. The efficacy of higher values WAN (64), Internet (128), Unrestricted (255) depends on the configuration of the network

# Adding QuickTime or Darwin Streaming Server *cont...*

## The On Demand Settings

### MEDIA LOCATION

Write movies to the default media location. Select this option if you want your media to be written to the Content Server's default media location (you can check the default media storage location in the Server Maintenance page). The default media location for MPEG4 files is (media location)\data\www.

Write movies to an alternate location. Choose this option if you want to write the media to an external streaming server using a shared drive or UNC path. Enter the shared drive or UNC path, e.g. //servername in the Alternate path field.

FTP movies to location. Choose this option to FTP the media files to the external streaming server once the call has ended.

Server Address. Enter the IP address or DNS name of the FTP server.

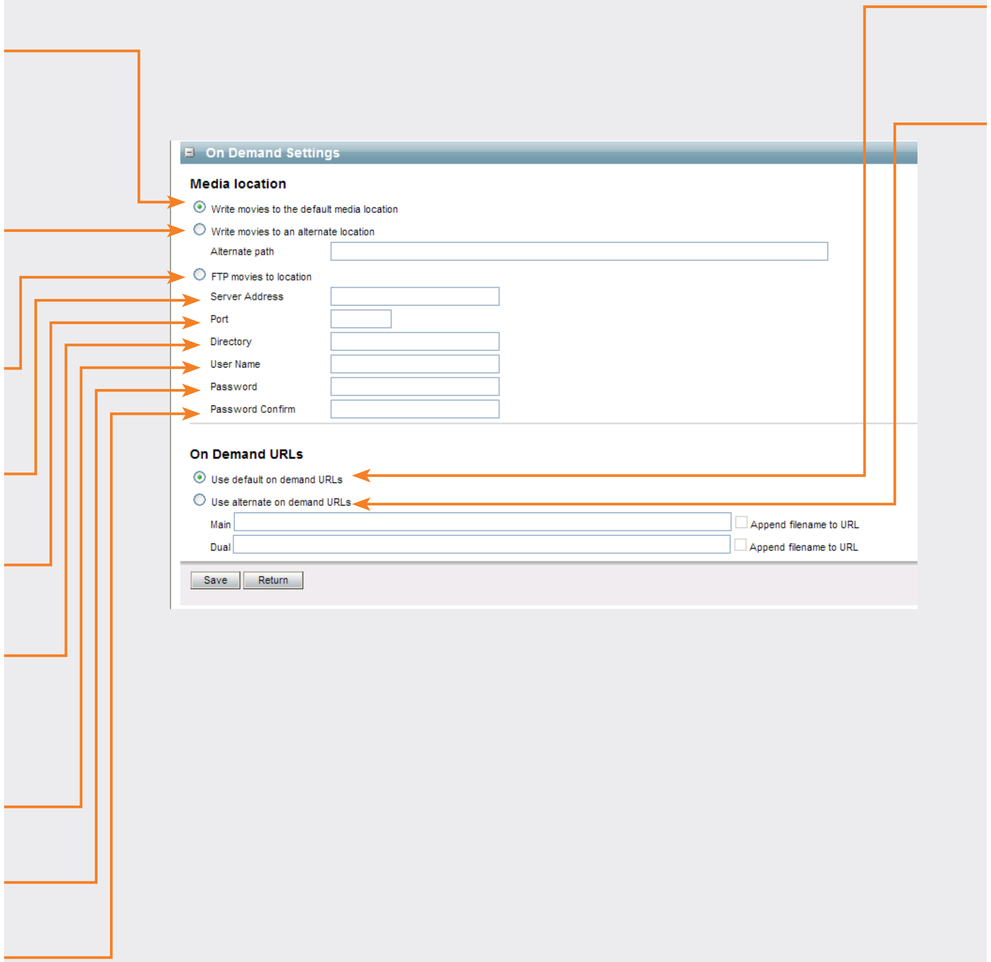
Port. Enter the port number of the FTP service. Most FTP servers will use port 21.

Directory. Enter the directory relative to the root FTP directory on the FTP server. Leave this blank to upload to the root FTP directory. The directory should be specified using forward slashes like in a URL, e.g. /movies/.

User Name. Enter the username to be used for authentication with the FTP server.

Password. Enter the password to be used for authentication with the FTP server.

Password Confirm. Enter the password again to confirm.




### ON DEMAND URLs

Use default on demand URLs. Choose this option to use the default on demand URL for this media server.

Use alternate on demand URLs. Choose this option to supply your own URLs for on demand streaming. Enter the URLs for Main and Dual video streams and choose whether you wish the filename to be appended to the alternate URL.

# Adding Real Media Streaming Server

## Configuring Real Media Server

Click on the Add Real Media Streaming Server to configure an external server for streaming Real Media.

### SERVER SETTINGS

Name. Enter a descriptive name for the server. The server name will be used in a template when selecting a media server.

Server Address. Enter the DNS name or the IP address of the server.

Support Live Streaming. Select if the server is to support live streaming. Once selected the Media Server will be available to choose in the Live Media Server Settings for templates that stream Real Media.

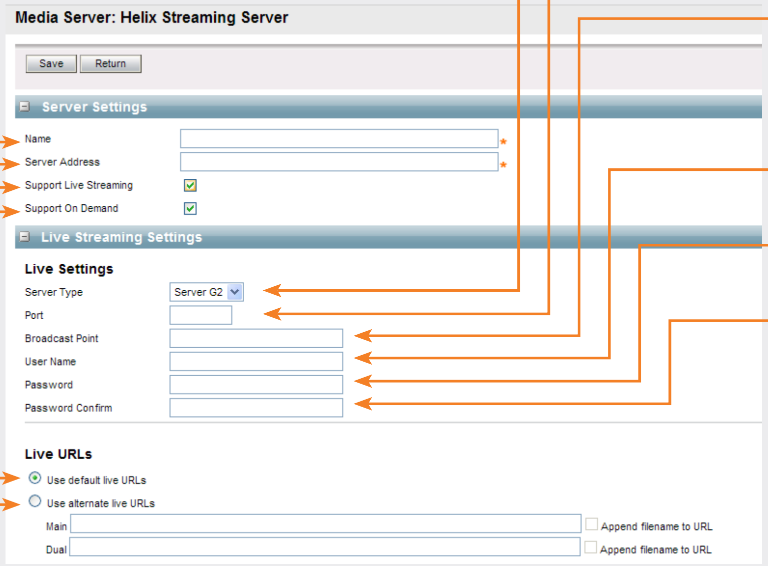
Support On Demand. Select if the server is to support on demand streaming. Once selected the Media Server will be available to choose in the On Demand Media Server Settings for templates that stream Real Media.

### LIVE URLs

Use default live URLs. Choose this option to use the default live URL for this media server.

Use alternate live URLs. Choose this option to supply your own URLs for live streaming. Enter the URLs for Main and Dual video streams and choose whether you wish the filename to be appended to the alternate URL.

## The Real Media Streaming Settings Options




### LIVE STREAMING SETTINGS

Server Type. Select either Server G2 or Server 90.

Port. Enter the port to be used for live streaming off your Real Media server.

Broadcast Point. Enter the broadcast point for the server. If you have not manually changed it on your external server, the broadcast mount point for Server G2 is “encoder”, and for Server 90, “broadcast”.

User Name. Enter the user name to be used for authentication with your streaming server.

Password. Enter the password to be used for authentication with your streaming server.

Password Confirm. Enter the password again to confirm.

# Adding Real Media Streaming Server *cont...*

## The On Demand Settings Options

### MEDIA LOCATION

**Write movies to the default media location.** Select this option if you want your media to be written to the Content Server's default media location (you can check the default media storage location in the Server Maintenance page). The default media location for Real Media files is (media location)\data\www.

**Write movies to an alternate location.** Choose this option if you want to write the media to an external streaming server using a shared drive or UNC path. Enter the shared drive or UNC path, e.g. //servername in the Alternate path field.

**FTP movies to location.** Choose this option to FTP the media files to the external streaming server once the call has ended.

**Server Address.** Enter the IP address or DNS name of the FTP server.

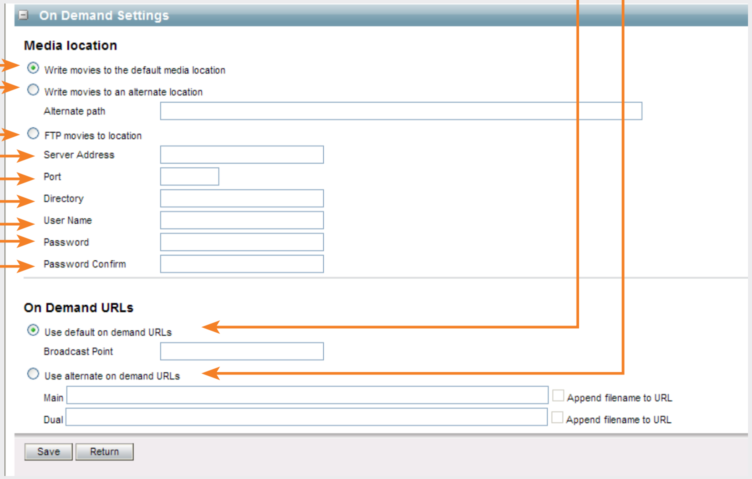
**Port.** Enter the port number of the FTP service. Most FTP servers will use port 21.

**Directory.** Enter the directory relative to the root FTP directory on the FTP server. Leave this blank to upload to the root FTP directory. The directory should be specified using forward slashes like in a URL, e.g. /movies/.

**User Name.** Enter the username to be used for authentication with the FTP server.

**Password.** Enter the password to be used for authentication with the FTP server.

**Password Confirm.** Enter the password again to confirm.




### ON DEMAND URLs

**Use default on demand URLs.** Choose this option to use the default on demand URL for this media server. Enter the Broadcast Point for the streaming server.

**Use alternate on demand URLs.** Use alternate on demand URLs: Choose this option to supply your own URLs for on demand streaming. Enter the URLs for Main and Dual video streams and choose whether you wish the filename to be appended to the alternate URL.

# Call Configurations

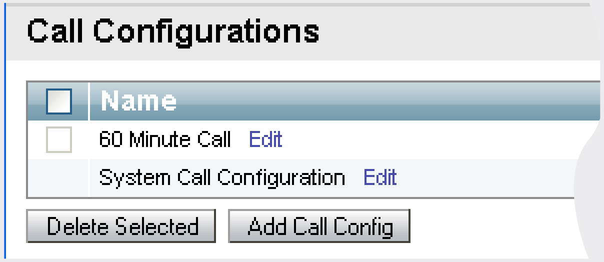
## About Call Configurations

The Call Configurations page allows administrators to set up different configurations for calls. These call configurations can then be selected in a Recording Aliase and used in a call.

The following call options are controlled by the Call Configuration attached to a Recording Alias:

- H.239 support and resolutions
- supported call speeds
- maximum call length
- encryption support
- supported video and audio codecs.

## Call Configurations Overview




The System Call Configuration cannot be deleted. It can be edited and then saved as a new Call Configuration. It has all options selected and is used in the pre-installed Recording Aliases - Default OnDemand only and Default Live and OnDemand.

User created Call Configurations that are used in a Recording Alias will have their selection box greyed out, so cannot be deleted.

# Editing, Duplicating or Creating a New Call Configuration

## About Editing

This is very similar to the template editing described in the articles on Template Editor.

System call configuration cannot be altered— instead it can be edited and saved under a new name to allow changes to be made.

Non-system call configurations, however, may be edited.

The Call Configuration Editor Page is shown here as it looks when the Add Call Config button has been clicked.

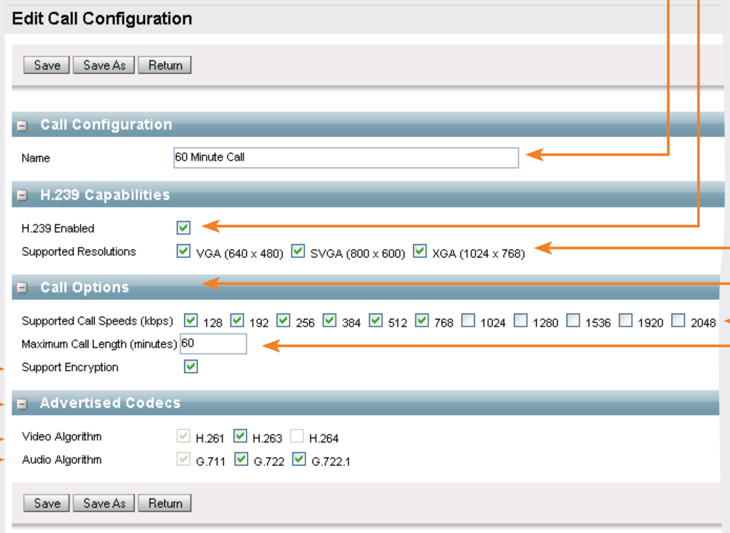
Support Encryption. Select to allow calls using this call configuration to use encryption.

Advertised Codecs. The TANDBERG Content Server supports advertising of video and audio codecs as part of the capability set negotiation.

Video Algorithm. The administrator can enable advertising of video codecs for each call configuration by selecting the checkbox. Supported advertised codecs. include H.261, H.263 and H.264.

Audio Algorithm. The administrator can enable advertising of audio codecs for each call configuration by selecting the checkbox. Supported advertised codecs include G.711, G.722 and G.722.1.

## The Call Configuration Editor Settings




Name. Use the Name field to provide a short description of your call configuration file.

H.239 Capabilities Enabled. H.239 capabilities are enabled by default. If H.239 Dual Video output is not required, this capability can be disabled.

Supported Resolutions. Administrators can select the resolutions for acceptable H.239 video input. For optimal performance, it is recommended that the maximum resolution be set to 800×600 or 640×480.

Call Options. The supported call speeds and maximum time in call can be set for call configuration.

Supported call speeds (kbps). The administrator can select the supported call speeds for calls from a range of options from 128 to 2048 kbps. This determines the range of available call bandwidths when the Recording Alias using a given call configuration is dialled.

Maximum time in call (mins). This feature will automatically end both incoming and outgoing calls when the call time exceeds the length of time specified in minutes. The default setting in the Full Call Configuration template is 0, which means that the call will never be automatically ended. The default value for new call configurations is 0.

# Categories



## About Categories

A conference can be assigned a Category to make searching for conferences quicker for the user. Personal Recording Aliases can be assigned a category so that any conference created using the alias inherits the category.

There are six categories that come with the Content Server installation, Announcement, Education, General, Meetings, News and Training. Each category contains a name and a description.

Administrators can edit existing categories, delete categories that are not needed and add new categories to the installation.

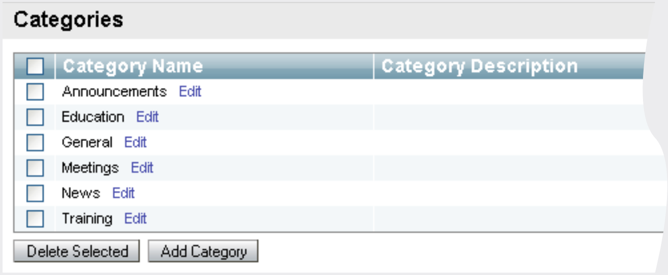
Delete categories by clicking the Categories select box and then the Delete Selected button

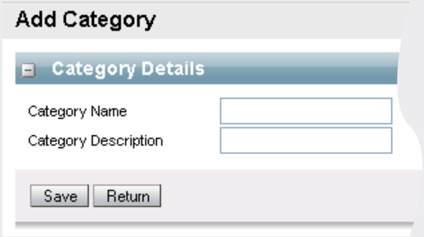
If a category is deleted, all conferences that were assigned that category will then have no category assigned to them.

Click the Add Category button to add a new category and description.

There is no limit on the number of Categories that can be entered.

## Adding Categories



# Server Logs

## About Server Logs

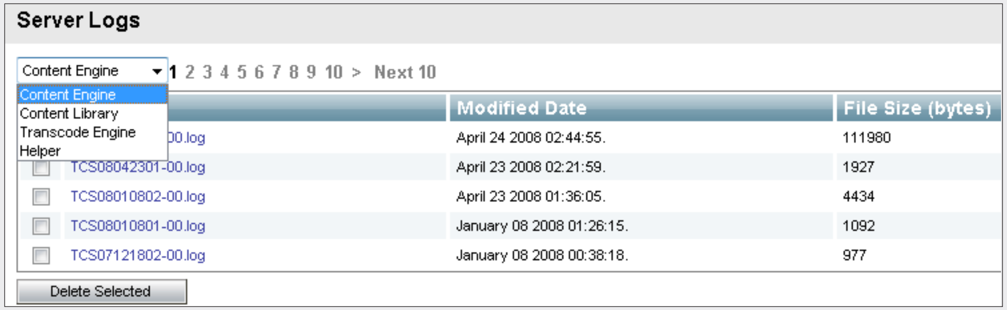
Content Server logs from the Content Engine, Content Library and Transcode Engine and Helper are available from this menu item.

- Content Engine logs are displayed by default.
- Select the service you want to see the log for from the drop-down menu.
- To view a log, click on name of the log file and you will be prompted to open it with your favorite text editor or save it to disk.
- The administrator can navigate through the log files and delete old log files from the interface.
- The current log for the TANDBERG Content Server is displayed first and cannot be deleted.

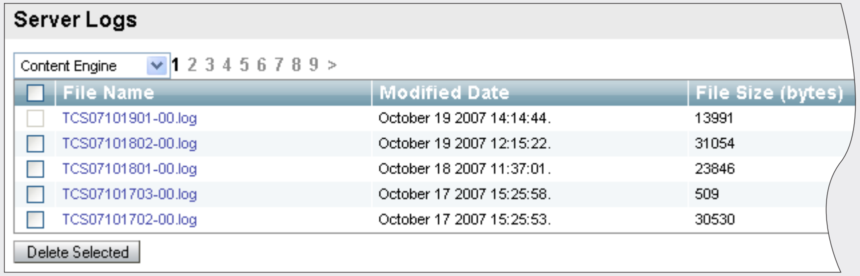
All server logs can also be accessed from the E:\logs directory on the Content Server.

Service event logs for the Content Engine, Transcode Engine, and Helper services can be found in the Event Viewer. These events show service starting and stopping information.

## The Server Logs Page




## Content Engine Logs




Content Engine logs include information generated by the TCS Content Engine service (TCSCE) about incoming and outgoing calls, codecs in call, call speed, presentation start/stop, Gatekeeper and SIP registration.

It also shows information about the generation of live streaming and live transcoded outputs.

The log will also record reasons for disconnected and rejected calls.

A new log is created every time the Content Engine service restarts. or if the current log exceeds 10 MB.

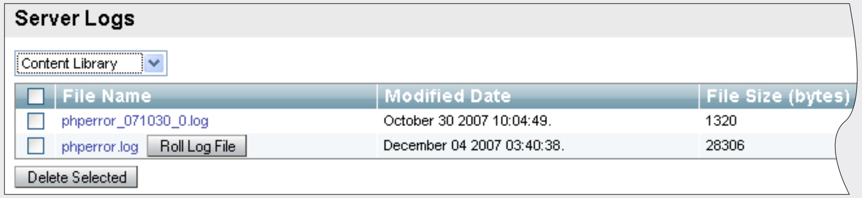
# Server Logs

## Content Library logs

The Content Library logs page displays the phperror log. This log includes information about errors reported by the PHP interface.

This log contains PHP execution errors and database exceptions reported by the interface - most can be ignored unless something unexpected has occurred while using the interface.

The phperror log file will roll automatically once it reaches approximately 5 MB. You can also click on the Roll Log File button to start a new log file manually.



Server Logs

Content Library

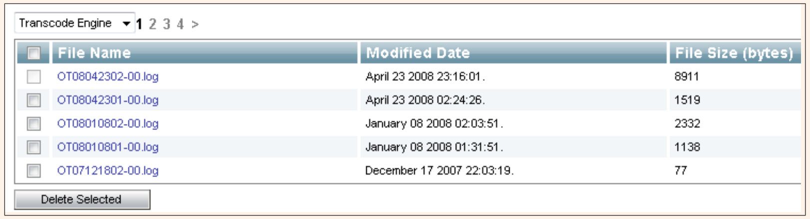
| | File Name | Modified Date | File Size (bytes) |
|---|---|---|---|
| ☐ | phperror_071030_0.log | October 30 2007 10:04:49. | 1320 |
| ☐ | phperror.log Roll Log File | December 04 2007 03:40:38. | 28306 |

Delete Selected

## Transcoding Engine logs

The Transcode Engine logs include information about offline transcoded outputs. This will include the output size and format, and how long the output took to transcode.

A new log is created every time the TCS Offline Trqanscode Engine (TCSOT) service is restarted, or if the current log exceeds 10MB.



Transcode Engine 1 2 3 4 >

| | File Name | Modified Date | File Size (bytes) |
|---|---|---|---|
| ☐ | OT08042302-00.log | April 23 2008 23:16:01. | 8911 |
| ☐ | OT08042301-00.log | April 23 2008 02:24:26. | 1519 |
| ☐ | OT08010802-00.log | January 08 2008 02:03:51. | 2332 |
| ☐ | OT08010801-00.log | January 08 2008 01:31:51. | 1138 |
| ☐ | OT07121802-00.log | December 17 2007 22:03:19. | 77 |

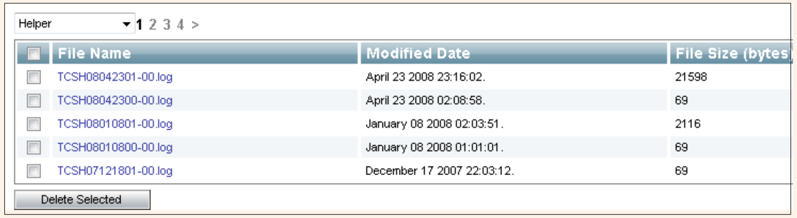
Delete Selected

## Helper Logs

The Helper logs show information from the Helper Tool service (TCSH) about the transfer of transcoded and dump files to their final storage location. FTP transfer information will appear in these logs.

The Helper logs also show the hinting information for MPEG-4 outputs, and will log the clean-up of files when a conference has been deleted.

A new log is created every time the TCSH service is restarted, or if the current log exceeds 10MB.



Helper 1 2 3 4 >

| | File Name | Modified Date | File Size (bytes |
|---|---|---|---|
| ☐ | TCSH08042301-00.log | April 23 2008 23:16:02. | 21598 |
| ☐ | TCSH08042300-00.log | April 23 2008 02:08:58. | 69 |
| ☐ | TCSH08010801-00.log | January 08 2008 02:03:51. | 2116 |
| ☐ | TCSH08010800-00.log | January 08 2008 01:01:01. | 69 |
| ☐ | TCSH07121801-00.log | December 17 2007 22:03:12. | 69 |

Delete Selected

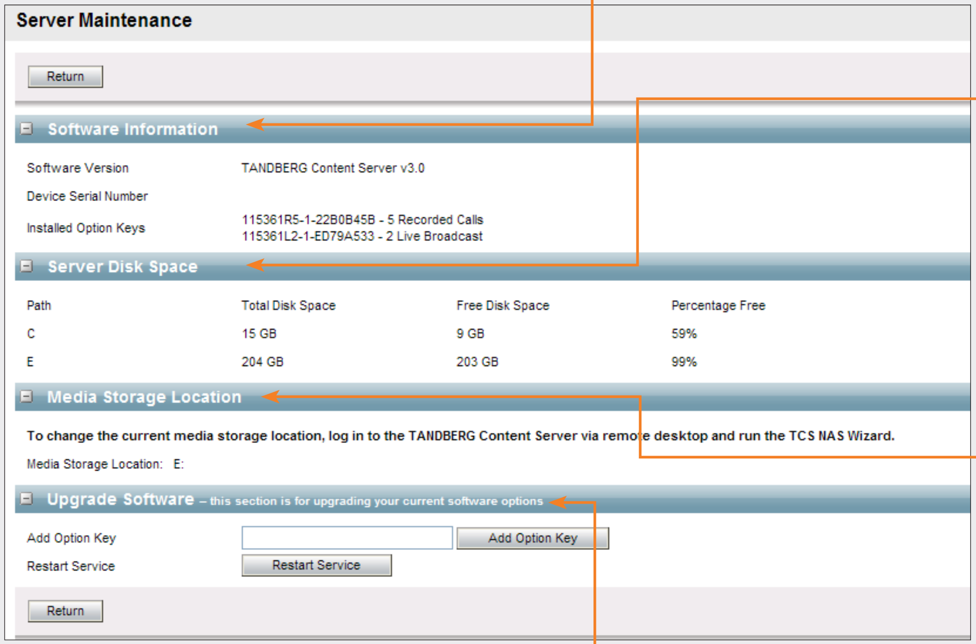
# Server Maintenance

## About Server Maintenance

This page allows administrators to:

- View Software Information
- View Disk Space
- View details of the Media Storage Location
- Upgrade the Content Server Software

## The Server Maintenance Page




Software information. The installed software version and build number, serial number, and option keys installed on the TANDBERG Content Server.

Disk Space. The total available disk space, free disk space and the percentage of free space left on disks. The disks for which this information is available include C:/ and the disk or disks which are used as the media location (E:/, if the default media storage location is on the local drive, and an additional disk if the media location is a NAS).

The Media Storage Location. This section is described in detail in the Media Storage section.

Upgrade Software. The Content Server software can easily be upgraded by adding option keys provided by authorized TANDBERG resellers or partners. After putting in the option key click on the Restart Service button to restart the Content Server for the installed option key to take effect.

# Media Storage Location

## About Media Storage Location

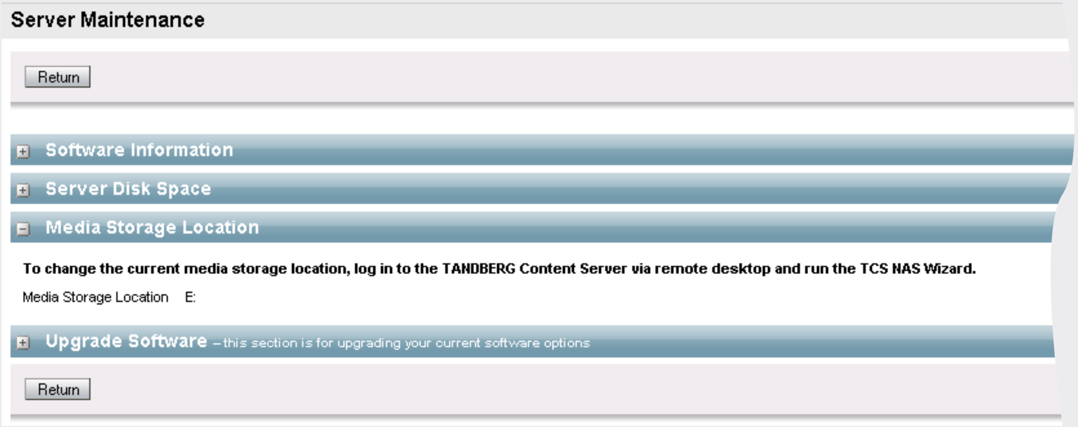
The default location for your media files is drive E: on your TANDBERG Content Server. You may change this location to store files on a Network Attached Storage (NAS) by using the TCS NAS Wizard.

The NAS Wizard gives you the ability to store your media in an external location, which means that your recording capacity will not be limited by the disk storage on the Content Server.

Your media will be recorded to a temporary directory on the Content Server first, and then automatically moved to the NAS. Your conferences will be streamed from the NAS using the Content Server's streaming media server or another external streaming media server that you specify.

We recommend NAS devices which are built on the Windows Storage server and are Windows Hardware Quality Lab certified. The file sharing protocol used by the Content Server to the NAS is Microsoft SMB.

## The Media Storage Location Information




## Prerequisites

Before you start, make sure that:

- The Content Server is added to same domain as the NAS (see the section on Authentication for details on adding the Content Server to a domain).
- Choose or create an account in the domain under which IIS will run. This domain account needs to have both administrative rights on the Content Server and permissions over the NAS share.

## Steps Required for Changing the Media Storage Location

To change the media storage location from the default E drive on the Content Server to the NAS:

1. Configure your NAS
2. Run the NAS Wizard from Remote Desktop on the Content Server

To change the media storage location back from the NAS to the default E drive location:

3. Run the NAS Wizard from Remote Desktop on the Content Server

# Changing Media Storage Location

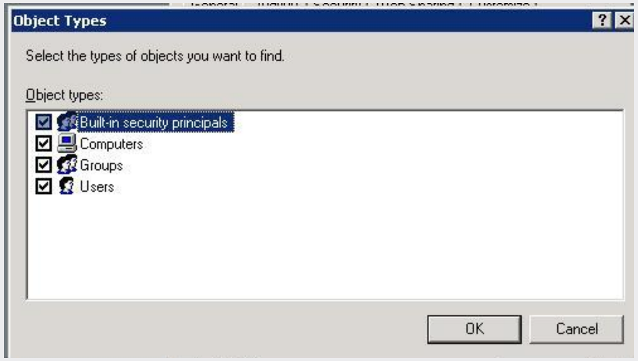
## Configuring the NAS

**1**

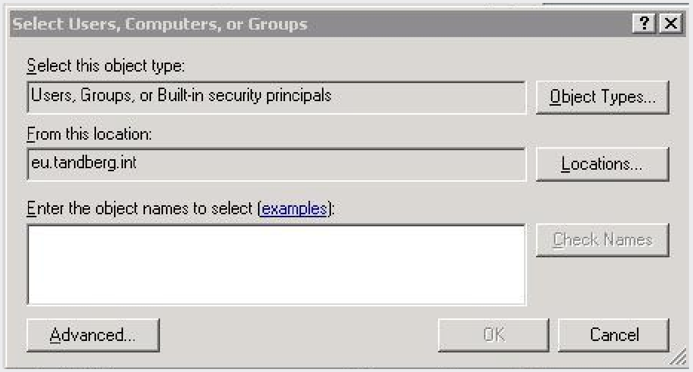
- Make sure that your Content Server is on the same domain as the NAS
- Remote desktop into your NAS
- Set up a share with a folder inside it.

**2** Set permissions and security settings on the share to allow the Content Server full control over the share:

- Right-click on the share and select Sharing and Security...
- Click on Permissions
- Click Add
- Click Object Types.




**3** Select the Checkbox for Type – Computers.




Enter <Content Server Server Name> (as registered in the domain). If you have not set a new server name through the Windows Administration site, the default Content Server name is `TANDBERG-####`.

**4** Click on Check Names and click OK.

Give User <Content Server Server Name> full control over the share.

**5** Click on the Security tab.

Repeat steps 2–4 to give the Content Server full control of the folder under the Security Settings tab.

**6** Click Set permissions and security settings on the share to allow the domain account performing the move full control over the share.
Repeat steps 2–5, but without checking Computers as the Object Type.

# Changing Media Storage Location

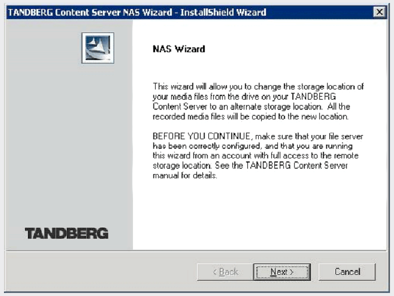
## Changing to Alternate Storage Location

1. Before you start, log in as the default administrator to the Content Server via Remote Desktop and add the domain account with permissions over the NAS share to the local administrators' group. Log out.

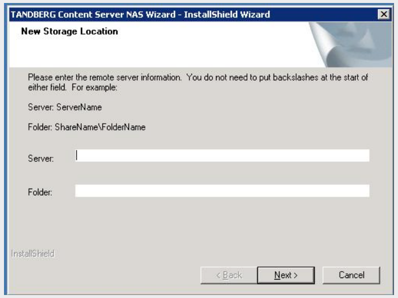
2. Log back in via Remote Desktop to the Content Server using the domain account which you have set up in 1, which has been used to change the media location to the NAS.

3. Go to Start Menu > All Programs > TANDBERG > TCS > TCS NAS Wizard, or double-click the TCS NAS Wizard shortcut on the desktop.

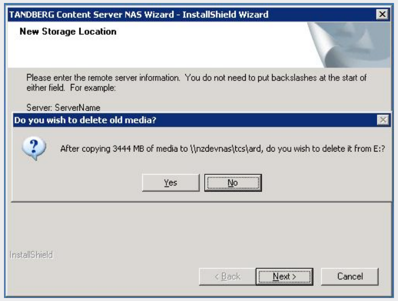
4. Click on Next to start the NAS Wizard.



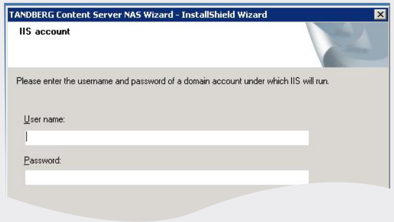

5. Enter the new storage location information:
   - ServerName
   - ShareName\FolderName.



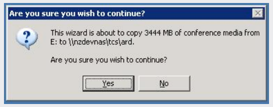

6. At the Do you wish to delete old media? prompt:
   - Click Yes, if you want to copy the media files to the new storage location and delete them from the current storage location.
   - Click No if you want to copy the media files across without deleting them from the current storage location.



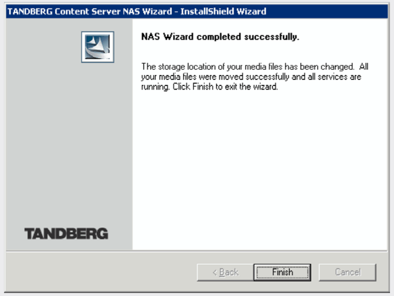

7. At the IIS Account prompt, enter the username (in the format DOMAIN\username) and password of the domain account under which IIS will run. This account needs to have both administrative rights on the Content Server and permissions over the NAS share.




8. At the Are you sure you wish to continue? prompt, click on Yes. Depending on the amount of data, the transfer may take several minutes.




9. Click on Finish to exit the NAS Wizard.



# Changing Media Storage Location

## Changing Back to the Default Media Storage Location

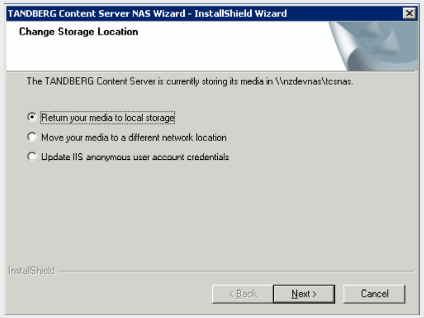
1. Log in via Remote Desktop to the Content Server using the domain account which has both administrative rights on the Content Server and permissions over the NAS share.

2. Go to Start Menu > All Programs > TANDBERG > TCS > TCS NAS Wizard, or double-click the TCS NAS Wizard shortcut on the desktop.

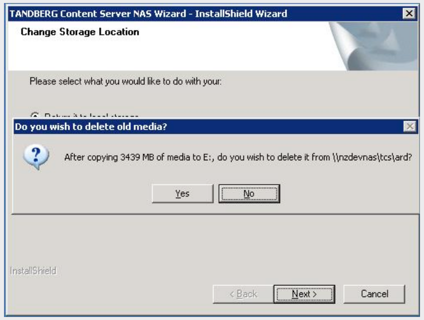
3. This will produce the NAS Wizard.

4. Click on Next to start the NAS Wizard.

5. At the Change Storage Location prompt, select Return it to local storage (if you select Move it to a different network location, follow the steps as outlined on the previous page).




6. At the Do you wish to delete old media? prompt:
   - Click Yes, if you want to copy the media files to the new storage location and delete them from the current storage location.
   - Click No if you want to copy the media files across without deleting them from the current storage location.

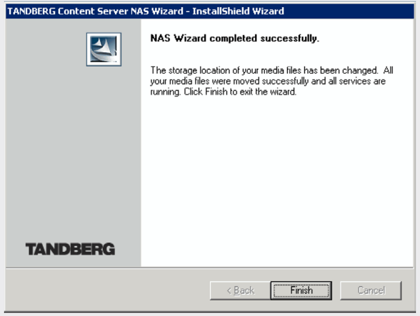



7. At the Are you sure you wish to continue prompt, click on Yes. Depending on the amount of data, the transfer may take several minutes.

8. Click on Finish to exit the NAS Wizard.

   Your media files have been transferred back from the Alternate Storage Location to the E: drive on the Content Server and any new recordings will be recorded to this new storage location from now on.

   To check your new media location, you may select Administrator Settings > Alternate Storage Location.



## About Windows Server

Selecting this menu item opens up the Windows Server administration page in a separate window.

This page can also be accessed by typing

https://<ContentServerIPAddress>:8098
in the Web browser URL field.

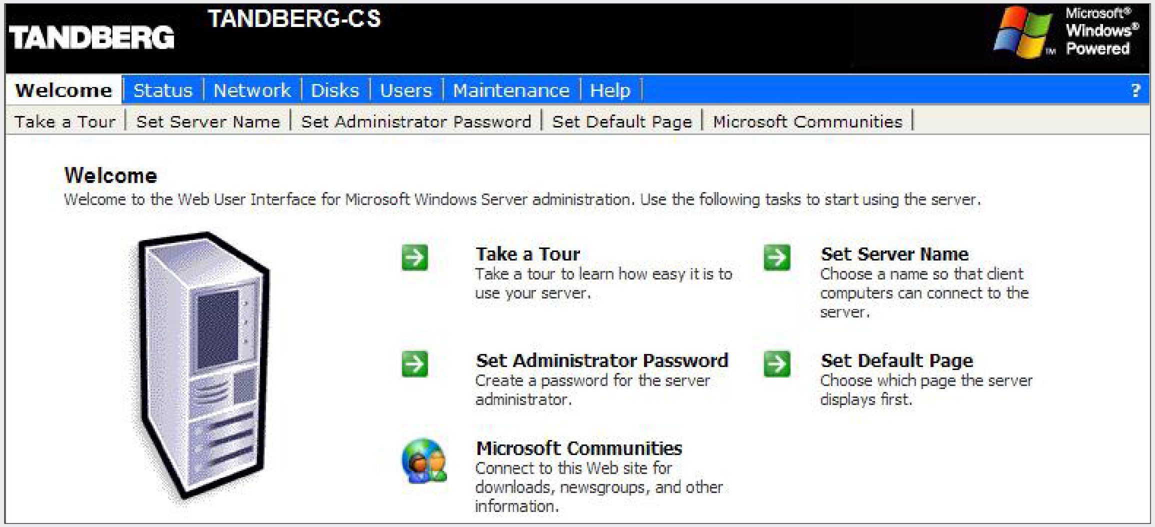
The Windows Administration site can be used for:

- Changing the Administrative password and updating Date and Time settings
- Creating local user accounts.
- Setting up backup options and restoring the Content Server

Close the window when finished.

The administrator needs to be using Microsoft Internet Explorer to use this menu item.

## The Windows Server Page



TANDBERG
Content
Server

## Conference Setup

Read the Conference Setup section for information on:

- Making calls from the Content Server Web Interface.
- Using and managing Recording Aliases
- Managing access to Conferences
- Editing Conference Metadata.

# Initial Steps When Creating a Conference

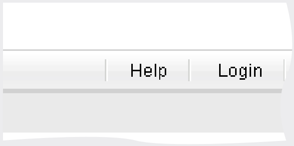
## About Conference Setup

The TANDBERG Content Server enables users with Editor and Administrator privileges to record video calls and to edit their recorded content.

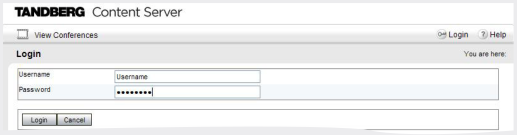
Editors and administrators need to log in to the Content Server to create and edit their conferences.

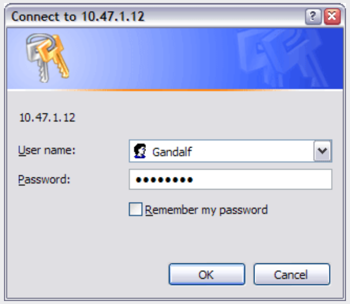
## Logging In

1. Click the Login button at the top right of the screen.



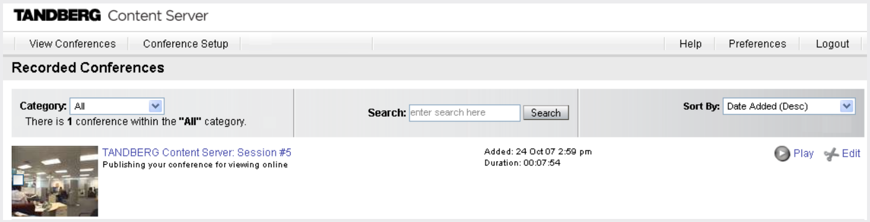

2. Depending on your authentication method, one of the following screens will be displayed.



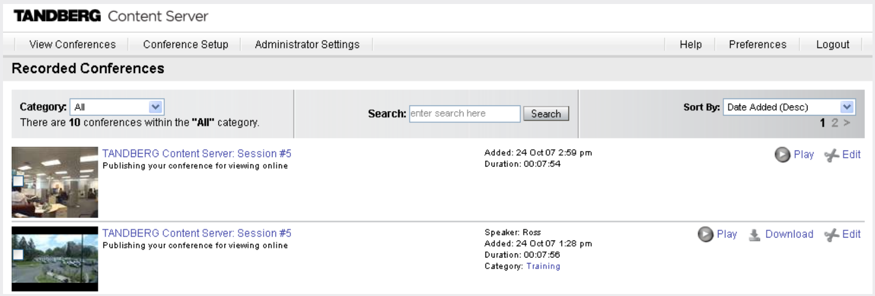




Enter your username and password details to authenticate, as indicated in the Prompting Users to Log in section of this manual.

3. You will see a screen similar to this if you are a conference owner and have the ability to record calls and edit your recorded content.




4. You will see a screen similar to this if you have administrative privileges.



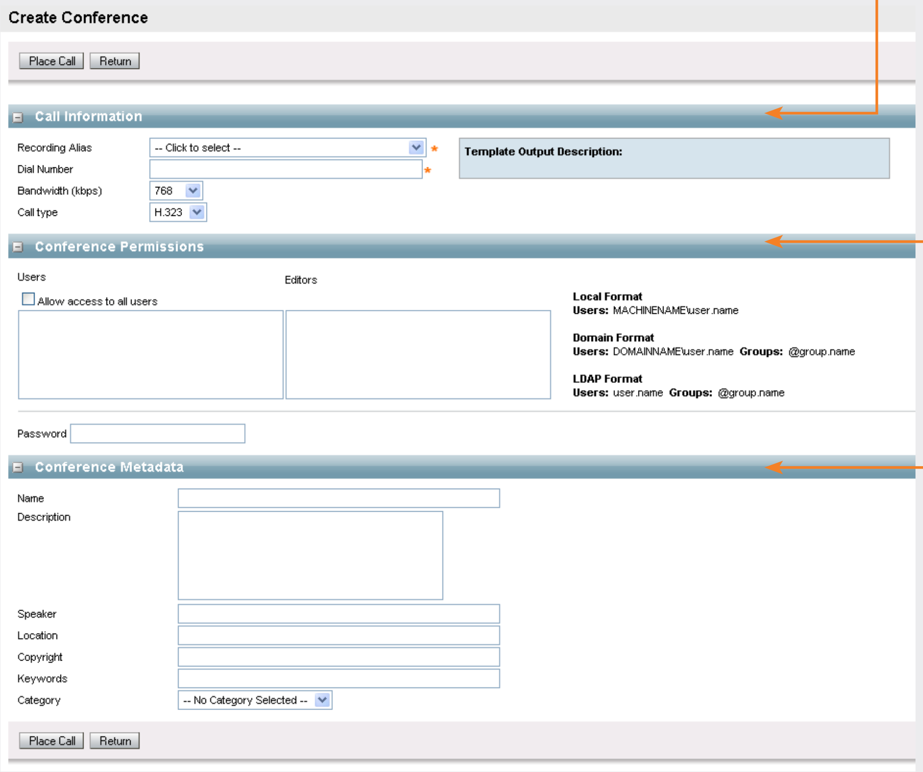
# Creating Conferences

## About Creating a Conference

Use this menu item to create Ad Hoc conferences from the Content Server interface. A Scheduled Conference will end an Ad Hoc call.

In the Conference Setup menu in the menu bar, choose the Create Conference option. The screen will then look like this.

## The Create Conference Settings




Call Information. These setting include live and non-live Recording Aliases, the Dial Number, Bandwidth (kbps) and Call Type Call Settings.

Conference Permissions. Here you define who should be granted edit rights and who should be granted viewing rights to the conference as well as the option to enter a conference password.

Conference Metadata. Metadata gives you the possibility to include such things as:

- The name of the conference that participants will see.
- Details about the conference.
- Name or names of the conference speakers.
- Where the conference takes place.
- Any copyright information about the conference.
- Any keywords that can be used when searching for the conference.
- A category selected from the pull down list for this conference.

# Call Information



## Templates Determine Outputs!

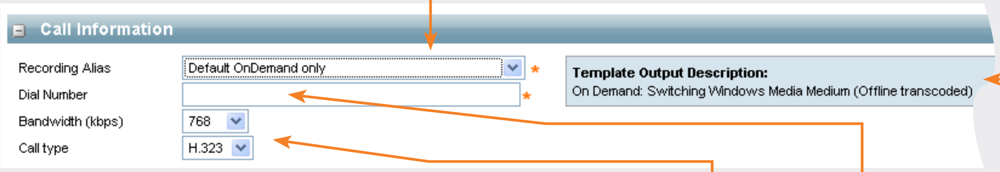
The Recording Alias determines the outputs for each recorded conference. The call can have a live streamed component or be for on demand viewing only, that is, have non-live outputs.

Please note that all calls are recorded by default.

It is the templates attached to the Recording Aliases that determine which calls have live and/ or on demand streaming options.

Check the Template Output Description for the selected Recording Alias for a description of the Outputs.

## The Call Information Settings




Recording Alias. Choose a Recording Alias from the drop down list. A maximum of five calls can be active at any one time and two of these can be streamed live.

Template Output Description. Displays the Viewer outputs, Live and On Demand with the layout, format and size.

Also displays the Downloads for portable devices and for playback on the User's computer.

Note: This gives the Owners the ability to check that they have the correct Recording Alias selected for the call.

Dial Number. Enter the number of the endpoint you are calling. The address can be in the format of an IP address, H.323 ID or E.164 alias.

H.323 ID and E.164 alias dialing requires a gatekeeper.

Call Settings. By default the Bandwidth is set to 768 and Call type is set to H.323. The bandwidth can be changed with available options from the Call Configuration used with the Recording Alias.

The Call Type can be H.323 or SIP if the Content Server is registered to a SIP registrar.

# Conference Permissions



## The Conference Permissions Settings

Users are entered into the Conference Permissions page to enable them to view or edit confernces.

Enter user or group names in the Editors or Users text fields one per line or separated by a semicolon, in the following formats:

Adding users under Local authentication:

Users must be entered in this format: MACHINENAME\user.name

Local user accounts must be created on the Content Server first (see Adding Users)

Adding local groups is not supported.

Adding users under Domain authentication:

Users must be entered in this format: DOMAINNAME\user.name or DOMAINNAME\user.name:Display name

Groups must be entered in this format: @group.name

Adding users under LDAP authentication

Users must be entered in this format: user.name or user.name:Display name

Groups must be entered in this format: @group.name

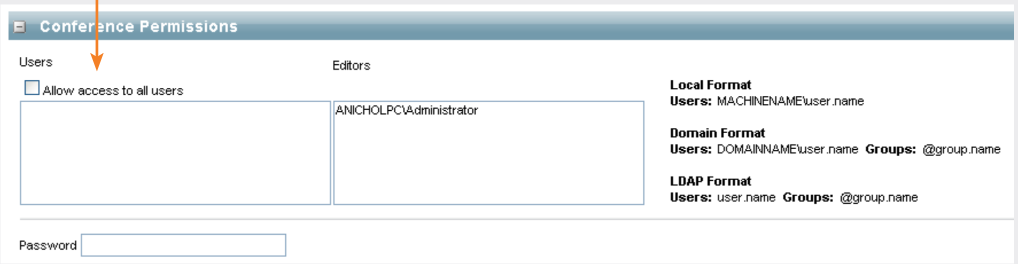
Editors. Editors can edit and delete a conference.

Users. Users can view the conference.

Entry in this field is disabled if Allow access to all users checkbox is selected.

Users have access to view conferences only.

Editors can edit conference permissions and metadata, use the Content Editor to change the conference and add further outputs to a completed conference. They can also delete conferences they are editors of.




Allow access to all users. If this checkbox is selected AND Guest access is enabled in Site Settings, all guests can view the conference.

If Allow access to all users checkbox is selected AND Guest access is not enabled in Site Settings, all authenticated (logged in) users can view the conference.

Password. Enter a password to restrict streaming access to this conference and the ability to download content. If no password is entered, then users who can view the conference list, will be able to view the conference and download any available content.

# Conference Metadata



## The Conference Metadata Settings

The Conference Metadata will be retrieved from the recording alias that has been selected in the Call Information section of the screen.

When a call is placed, additional metadata on screen will include: Date, Duration and URL information.

After you have entered the required information click the Place Call button to start the call or click the Return button to cancal making the call and leave the screen.

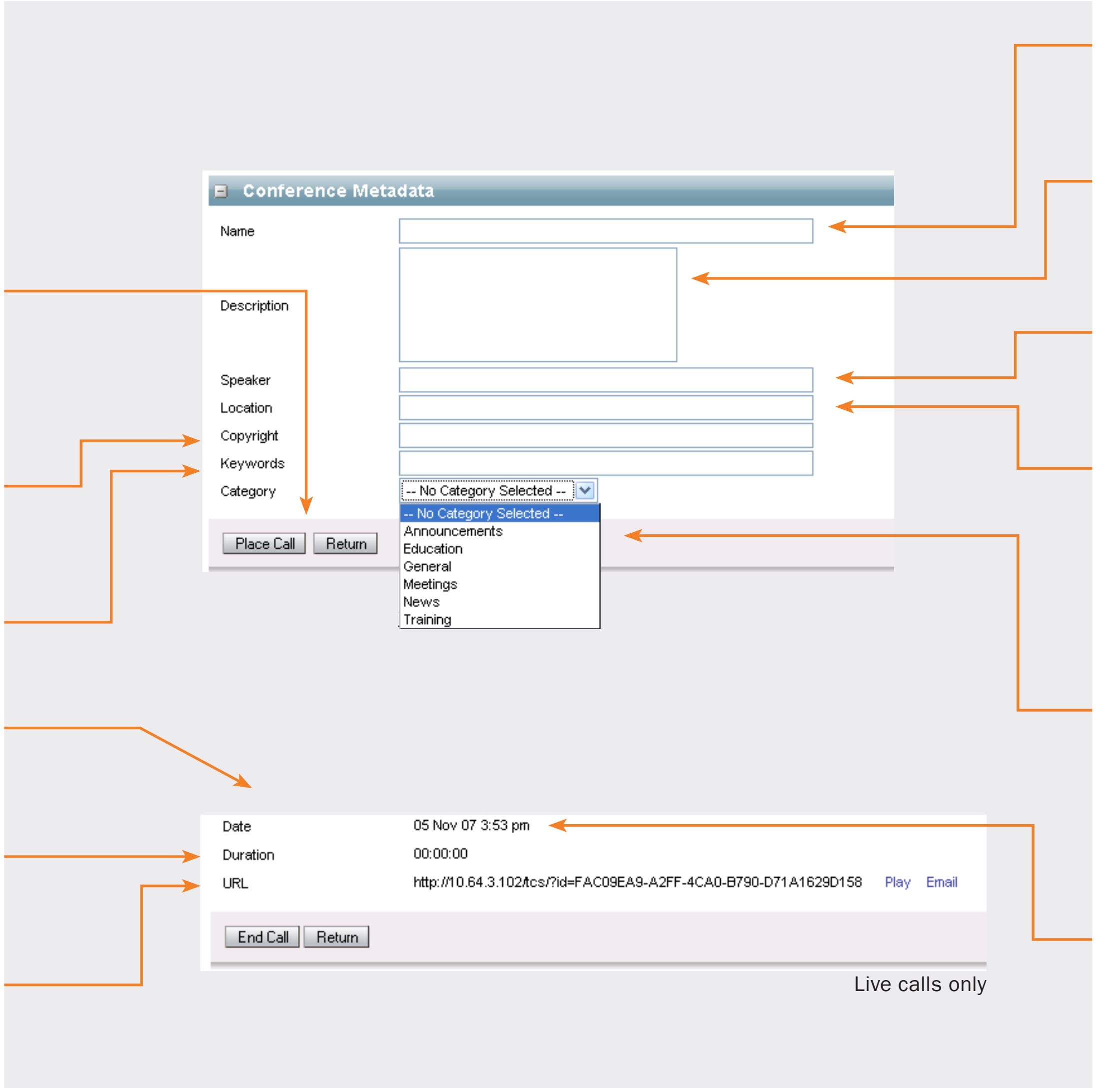
**Copyright.** Enter any copyright information about the conference.

**Keywords.** Enter any keywords that can be used when searching for the conference.

Additional metadata displayed for a live call includes: date, duration (duration of 0 will be shown until the call ends) and URL.

**Duration.** The length of the recorded conference will be displayed in the format hh:mm:ss. Any edited conference will display the new length if the In and/or Out Points have been changed..

**URL.** The URL to the conference will be displayed at creation time of the conference.




Live calls only

**Name.** The name of the conference that participants will see.

**Description.** Details about the conference to be displayed beneath the Name in the Conference list.

**Speaker.** Name or names of the conference speakers.

**Location.** Where the conference takes place.

**Category.** Select the category from the pull down list for this conference.

**Date.** The date and time of the start of the conference will be displayed at creation time of the conference.

# Call Information: When in a Call



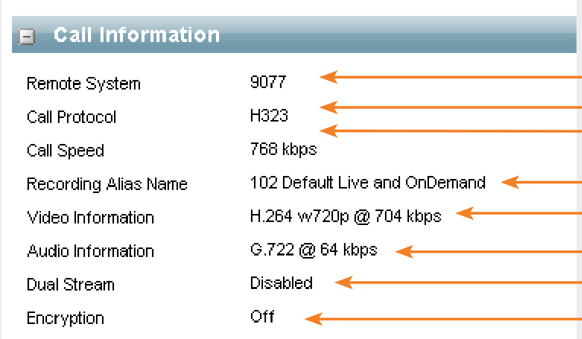
## About Call Information

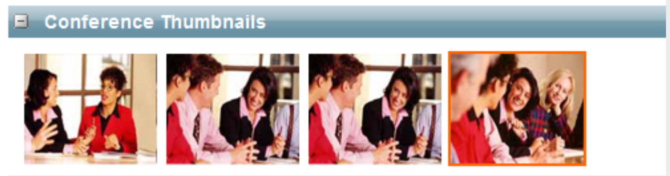
After the Place Call button has been clicked on, the call information will be updated with current information about the call.

Conference Thumbnails. If the call has a live component, beneath the Call Information, thumbnails will be displayed. They are created at 5 seconds, 1 minute, 5 minutes, 30 minutes and 1 hour.

A call without a live component will not have any Thumbnails created until the call is being processed for on demand viewing.

## The Call Information Display




Remote System. The endpoint or device the Content Server is connected to.

Call Protocol. SIP or H.323

Call Speed (kbps). The call speed for the recording.

Recording Alias Name. The recording alias that was used in the call.

Video Information. Displays the protocol, i.e. H.264, for the call, the data rate of the video and the call format.

Audio Information. Displays the protocol, i.e. G.722, and data rate for the audio in the call.

Dual Stream Information. Displays the status of the dual, on or off, and the format.

Encryption Information. Displays the status, on or off, and the algorithm used if it is on.

# Ending the Call



## About Ending Calls

There are two ways of ending a call:

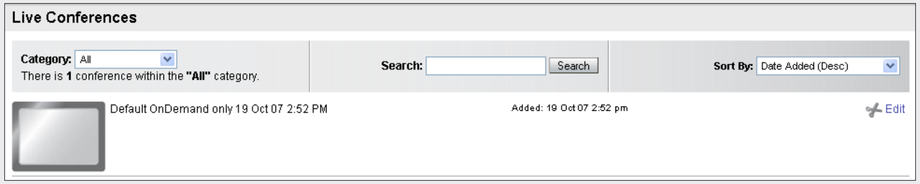
You can end a live call by hanging up the call at the endpoint.

You can end the call from the Web Interface of the Content Server. This method will give you information about the call, after it has completed, e.g. Thumbnails, Permissions and Metadata and enable editing of the conference for viewing.

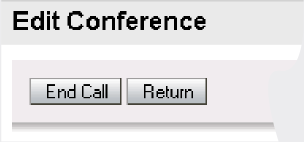
The Recorded Conferences list will display a small icon on the right hand side of the screen indicating that this conference has more outputs to be transcoded. The icon will be to the left of Edit, Download and Play. What icons are displayed depends on the Template used in the call.

## Ending the Call from the Web Interface

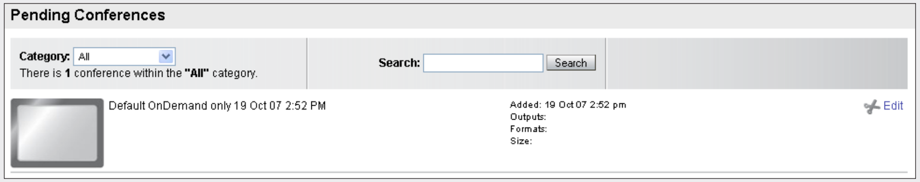
1. To end a call from the Content Server Interface, first list the Live Conferences from the View Conferences menu. Click the Edit link for the conference that you want to end.

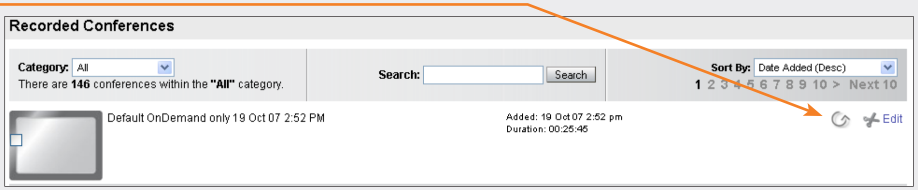



2. Click on the End Call button at either the top or the bottom of the screen.




3. You will see the Call Status change to Ending Call and then the conference will be listed in the Recorded Conferences list and the Pending Conferences list if further outputs need to be created.



# Recording Ad Hoc Calls



## Dialing in

Users can record their calls by dialing in to the Content Server from H.323 devices.

It is possible to make calls by dialing:

- The Content Server IP address—this feature does not require the Content Server to be registered to the gatekeeper.
- The Content Server system name or E.164 alias—this feature requires the Content Server to be registered to the gatekeeper.
- The H323 ID or E.164 alias of a recording alias—this requires the Content Server to be registered to the gatekeeper.
- The Content Server SIP URI—this feature requires the Content Server to be registered to a SIP registrar.
- The SIP URI of a recording alias—this requires the Content Server to be registered to a SIP registrar.

## Concurrent Calls

It is possible to make up to 5 concurrent calls, of which two can be broadcast live.

The same recording alias can be used for the two live calls and another one, with no live component, can be used for the other three calls. Also, 5 different recording aliases can be used for the 5 calls.

## A Recording Conference Logo Displayed at Far End

Once connection to the Content Server has been established, a Recording conference poster will be displayed at the endpoint.

If the template has a live output, the call will be streamed live and available for viewing on demand.

If the template does not have a live output, it will be available for on demand viewing. Calls made from endpoints to the Content Server begin recording once the call setup is complete and the Content Server begins receiving audio and video from the endpoint.

# Using TMS to Schedule Calls



## About TMS Scheduling

It is possible to schedule calls to be recorded by the Content Server through TMS (TANDBERG Management Suite).

In order to use TMS to book recordings on the Content Server, you need to:

1. Enable the API in Content Server Site Settings > API
2. Add the Content Server to TMS

If the Content Server is registered to a gatekeeper in Gateway mode, users booking a conference in TMS 11.8 and above can choose from a range of System Aliases and their Personal Recording Aliases. No further special configuration is necessary on the Content Server side.

If the Content Server is registered to a gatekeeper in Terminal mode, only System Aliases and dedicated Personal Aliases (with the owner set to api-admin) will be available for recording conferences. See below for configuration notes.

## Creating a Dedicated TMS Alias[1]

From the Add Users page on the Content Server, add a new user with the username api-admin. The user needs to have Administrator privileges.

Create a new recording alias e.g. TMS Alias, with the owner set to: api-admin

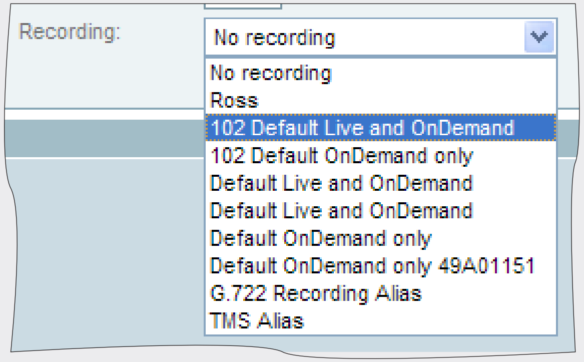
Do NOT check the System Alias checkbox—the TMS alias must be a Personal alias.

You need to create 2 live and 3 non-live dedicated TMS-only Recording Aliases. Only those aliases will be available for booking by TMS.

For more information on TMS integration, refer to the TANDBERG Management Suite Administrator Guide or contact your TANDBERG representative or authorized reseller.

1) When the Content Server is in Terminal mode

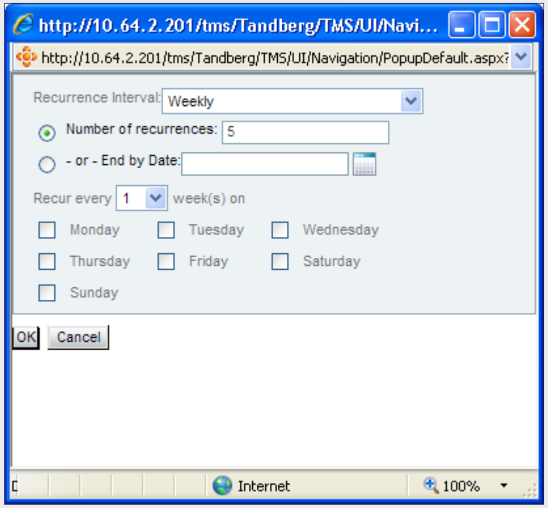
## Scheduling Calls with TMS




A user who logs in to TMS 11.8 or above with their user name will see their own Personal Recording Aliases and any System Aliases in the Recording List of Aliases.

This graphic displays the Personal Recording Alias Ross and the two System Aliases, 102 Default Live and OnDemand and 102 Default OnDemand only.

TMS 11.8 and above offers full support for Recurrent meetings.




Graphic shows the user booking a series of recurrent meetings through TMS.

Current meetings that are recorded with the TANDBERG Content Server will be displayed in the Live Conferences List when they are occurring and when completed will be available from the Recorded Conferences List.

Content Server v.3.0 is backwards compatible with TMS 11.7 for booking a Transcoding call, using a dedicated TMS-only Recording Alias. Archiving call support is not available.

# Recording Alias Options



## About Recording Alias Options

Recording Aliases are used to record a Conference and they contain all the relevant information about the Call.

The default TANDBERG Content Server installation has two default system aliases available.

The two default aliases are:

- Default Live and OnDemand
- Default OnDemand only

Multiple concurrent calls can be made using both those aliases but of the five concurrent calls, up to two can be live.

The recording alias determines:

- The call type—live or on demand.
- The outputs, based on the recording template and call configuration specified in the alias.
- Access to the live and recorded conference.
- Conference password (optional).

All conference metadata, such as name, description, speaker, location, copyright and category specified in the alias will be automatically applied to the conference and can be edited before the call is placed and also after the call has finished.

Calls made with the same alias will have the same default settings, but different conference URLs.

## Recording Alias Options and User Privileges

**Recording Aliases**

| ☐ | Name ▵ | H323 Alias | E164 Alias | Sip Uri |
|---|---|---|---|---|
| ☐ | 102 Default Live and OnDemand Edit | LiveTANDBERG-2AB501 | 1020001 | 1020001@tandberg.com |
| ☐ | 102 Default Live and OnDemand 2 Edit | LiveTANDBERG-2AB5012 | 10200012 | 10200012@tandberg.com |
| ☐ | 102 Default OnDemand only Edit | OnDemandTANDBERG-2AB501 | 1020007 | 1020007@tandberg.com |
| ☐ | api Edit | api | 1029077 | |
| ☐ | MPEG4 Edit | MPEG4 | 1029066 | 1029066@tandberg.com |
| ☐ | Ross Edit | Ross | 1029033 | |

Delete Selected | Add Recording Alias

The recording alias options are available from the Conference Setup menu and only for users with administrator or owner privileges.

By choosing the recording alias options an administrator will see a screen like the one shown here.

**Recording Aliases**

| Name ▵ | H323 Alias | E164 Alias | Sip Uri |
|---|---|---|---|
| MPEG4 Edit | MPEG4 | 1029066 | 1029066@tandberg.com |
| Ross Edit | Ross | 1029033 | |

For the same aliases, an owner (a user with privileges to make calls) will see only their personal alias or aliases, if the administrator has set them up with owner privileges for an alias.

**Recording Aliases**

You have no Recording Aliases to display.

Another owner (a user with privileges to make calls) may see no aliases at all, if the administrator has not set them up with owner privileges for an alias.

Aliases can be sorted according to their column title in both ascending and descending order.

The number of aliases displayed on a page can be 5, 10, 20, 50 or 100.

Navigating between pages is consistent with the view conference screens.

# Creating New Aliases

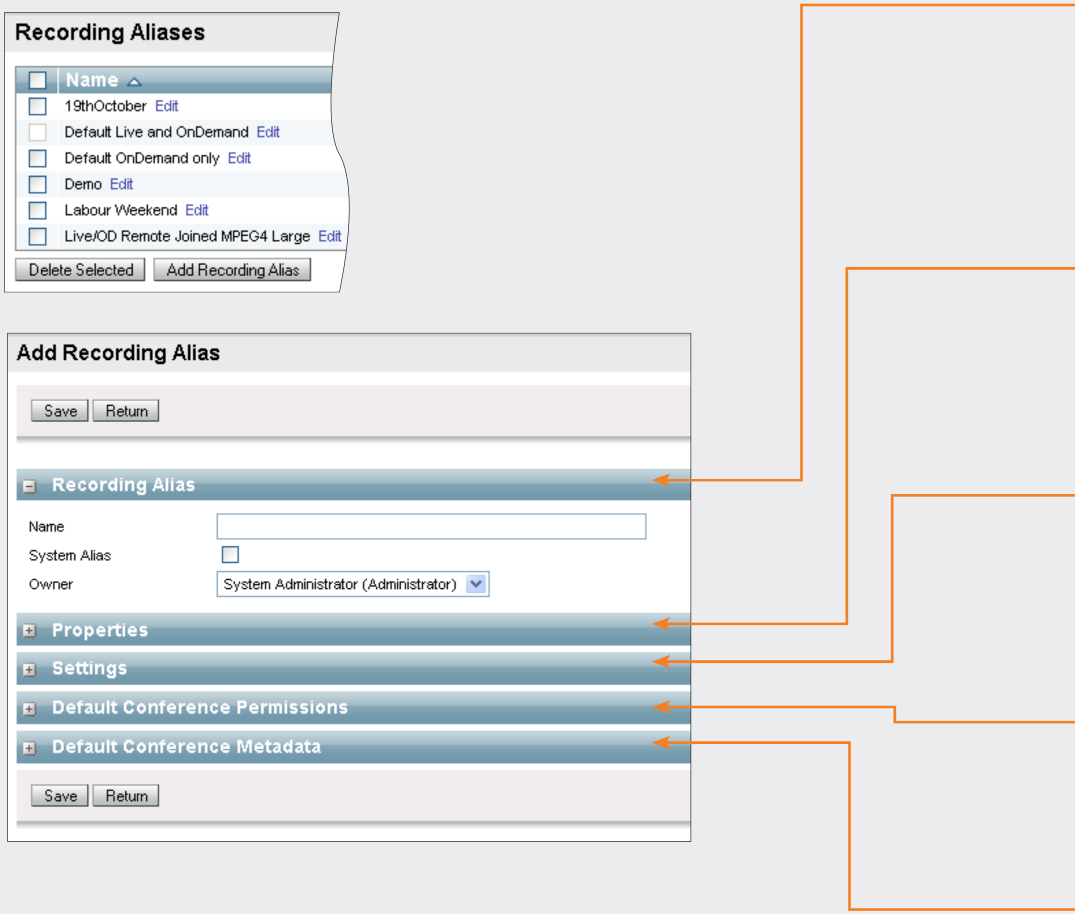


## About Creating New Aliases

Only administrators of the TANDBERG Content Server can create recording aliases.

Click the Add Recording Alias button on the screen to create a new recording alias.

## An Overview of the Options




Recording Alias. Specify the name for the recording alias to display in the list of aliases and when creating a conference. Select if this is a system alias. Select the owner for the alias. The owner will be able to edit the alias and select it when creating an ad hoc conference from the interface.

Properties. Lets you create a unique H.323 ID, a unique E.164 alias.

Settings. Used to select the recording template and the call configuration to use with this alias.

Default Conference Permissions. Used to specify the users (viewers) and editors of the conference. Also assign a password to the conference.

Default Conference Metadata. Used to specify information about the conference, including name, description, speaker, location, copyright, keywords and category.

# Creating a New Recording Alias



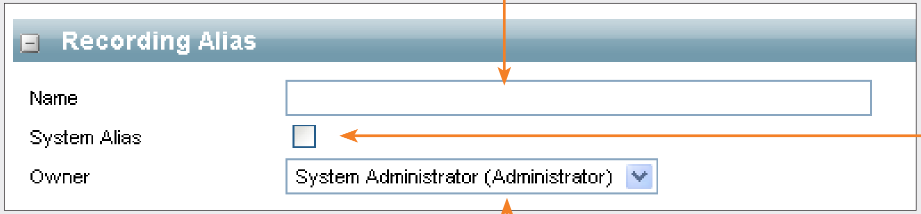
## About Recording Aliases

Owners can edit their recording aliases and they will be displayed in the Recording Aliases page from the Conference Setup menu.

Administrators can see and edit all properties of all aliases. Owners can only see and edit selected properties of their own alias.

System vs Personal. If you select the System Alias checkbox, the alias will be available for all users for dialing out from the Create Conference page. If you do not select the System Alias checkbox, the Alias becomes a Personal alias, so it will only be available on the Create Conference page to the Owner of that Alias and also from the TMS Recording list of Aliases when and Owner of a Recording Alias logs into TMS.

## An Overview of the Options




Name. Enter a meaningful name for the recording alias as this will display in the list of recording aliases as well as in the drop down list when creating an ad hoc conference.

This is also important for TMS calls as the recording alias will need to be identified by the name given here.

System Alias. Select the Owner of the Recording Alias from the drop down list. The Owner will be able to edit conferences created using the alias. If it is a Personal alias only the Owner will be able to edit and make calls with the alias.

Owner. Select the Owner of the Recording Alias from the drop down list. The Owner will be able to edit conferences created using the alias. If it is a Personal alias only the Owner will be able to edit and make calls with the alias.

# Specifying Properties



## About Specifying Properties

### Types of Aliases

**Live streaming vs. non-live streaming.** Recording aliases can have a live output or just on demand outputs.

**System vs Personal.** If you select the System Alias checkbox, the alias will be available for all users for dialing out from the Create Conference page. If you do not select the System alias checkbox, the alias becomes a personal alias, so it will only be available on the Create Conference page to the owner of that alias.

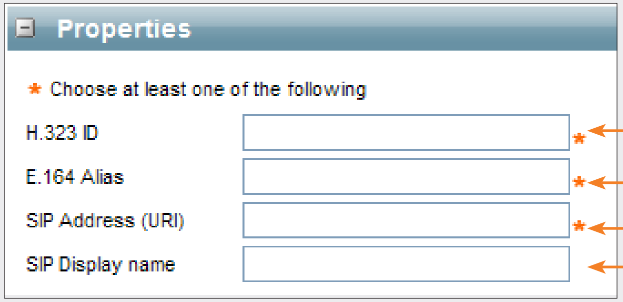
The orange asterisk means that you must specify at least one of the following:

H.3232 ID

E 164 Alias

SIP Address (URI)

## An Overview of the Options




**H.323 ID.** Enter a unique H.323 ID to select this Recording Alias when another system calls the Content Server. The Content Server must be registered with a Gatekeeper to use an H.323 ID. If the Content Server is registered to the gatekeeper as gateway, this alias needs to be used with a prefix specified in Site Settings.

**E.164 Alias.** Enter an E.164 Alias to select this Recording Alias when another system calls the Content Server. The Content Server must be registered with a Gatekeeper to use an E.164 Alias. If the Content Server is registered to the gatekeeper as gateway, this alias needs to be used with a prefix specified in Site Settings.

**SIP address (URI).** Enter a SIP Address (URI) to select this Recording Alias when another system calls the Content Server. The Content Server must be registered with a SIP Registrar to use a SIP URI.

**SIP Display name** (for SIP registration). Enter a Display Name for the Content Server's SIP Address (URI). This is presented as a description of the SIP URI by the SIP Registrar to other systems. It is often a full name or system name.

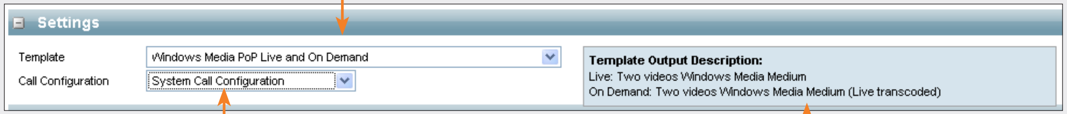
# Specify Settings



## About Specifying Settings

The combination of Template and Call Configuration settings determines the outputs of your call made with this recording alias.

## An Overview of the Options




Template. Select an output Template for the Recording Alias. Templates can be created, edited, and deleted by Administrators on the Templates page. Check the Template Output Description to ensure that appropriate outputs will be generated when a conference uses this Recording Alias.

Template Output Description. Displays the Viewer outputs, Live and On Demand with the layout, format and size that will be created by the Recording Alias.

Also displays the Downloads for portable devices and for playback on the User's computer.

Note: This gives the Owners the ability to check that they have the correct template selected for the Recording Alias.

Call Configuration. Choose the call configuration file to use with this alias.

# Specifying Default Conference Permissions



## Entering User Names

Enter user or group names in the editors or users text fields one per line or separated by a semicolon, in the following formats:

Adding users under Local authentication:
Users must be entered in this format:
MACHINENAME\user.name

Local user accounts must be created on the Content Server first (see Adding Users)

Adding local groups is not supported.

Adding users under Domain authentication
Users must be entered in this format: DOMAINNAME\user.name or DOMAINNAME\user.name:Display name

Groups must be entered in this format:
@group.name

Adding users under LDAP authentication
Users must be entered in this format:
user.name or user.name:Display name

Groups must be entered in this format:
@group.name

Editors. Editors can edit and delete a conference.

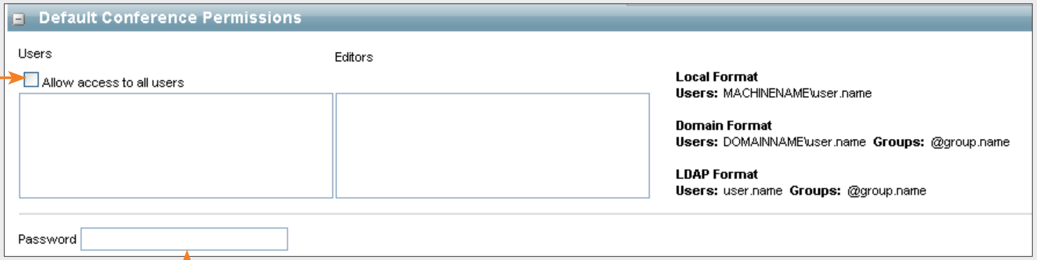
Users. Users can view the conference.

Entry in this field is disabled if Allow access to all users checkbox is selected.

Editors entered into the Recording Alias will be able to edit the resulting Conferences created using the Recording Alias.

If no Editors are entered, either the administrator or the owner of the Recording Alias must edit the conference when it has concluded to add in more editors.

## An Overview of the Options




Select Allow access to all users to give all users permission to view this conference. If Guest Access is enabled in Site Settings guests (unauthenticated users) will also be able to view the conference

Scenarios:

- If this checkbox is selected AND Guest access is enabled in Site Settings, all guests can view the conference.
- If Allow access to all users checkbox is selected AND Guest access is not enabled in Site Settings, all authenticated (logged in) users can view the conference.

A Password can be used to further restrict who may view the conference. All users specified in the Users access list above will be able to see the conference on the Recorded, Live, and Pending Conferences pages, but only those that know this password will be able to view it.

# Specifying Default Conference Metadata

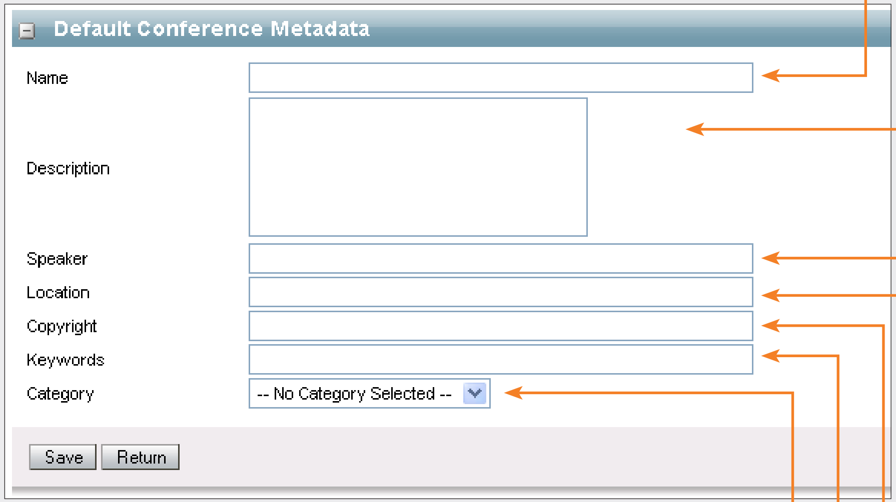
## About Default Conference Metadata.

The Metadata entered into a Recording Alias is copied into the Conference Metadata for a call that uses the Recording Alias.

Owners of the Recording Alias can change the contents of the fields at any time.

Editors can change the Metadata of the Conference only after the call has concluded.

## An Overview of the Options




Conference Name. The conference name displayed when conferences are listed. If no name is entered, one will be created at time of recording the conference. The default created conference name is made up of the recording alias name and the date/time of the call.

Description. Enter a description for the conference as this also appears under the name when conferences are listed in the interface.

Speaker. Enter the name of the main presenter of the conference as this is displayed on the conference list in the interface.

Location. Enter the location of the conference.

Copyright. Enter any copyright information applicable.

Keywords. List keywords as these are also searchable from the View Conferences menu items.

Category. Choose a category that this conference best fits. This enables a user to list like conferences in the interface.

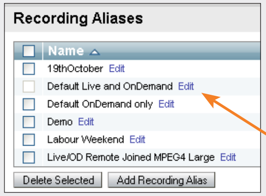
# Editing Recording Aliases

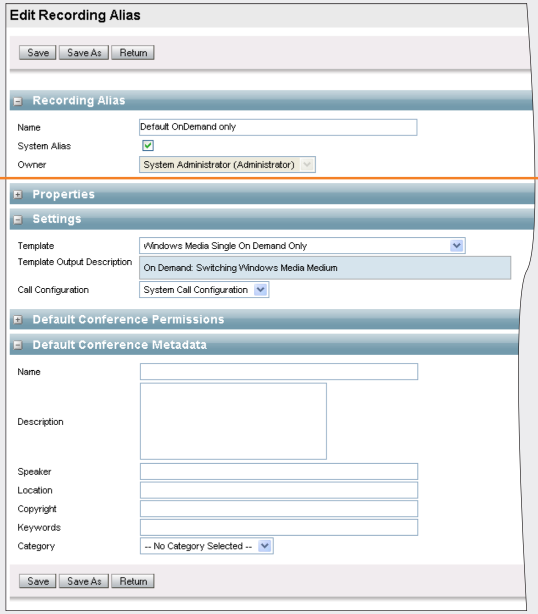
## Who Can Edit What?

Administrators can edit all recording aliases but owners can only edit some settings in their own aliases.

Refer to the previous pages for a list of all the fields and their description.

## What Administrators Will See



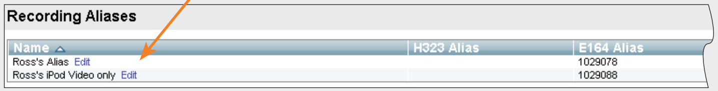

This screen is similar to the screen you see when creating new recording aliases. If you are an administrator you may edit all there is to edit.

If you are an Administrator you may edit Recording Aliases by clicking the Edit link next to the alias name

## What Owners Will See if They Have a Recording Alias

Owners can edit:

- The recording template (select a template from the drop-down menu)
- Default Conference Permissions (who can edit and view the conference)
- Conference password
- Default Conference Metadata (used for display and searching of the conferences).




Click the Edit link next to the alias name to edit it.

# Delete Recording Aliases

## About Deleting

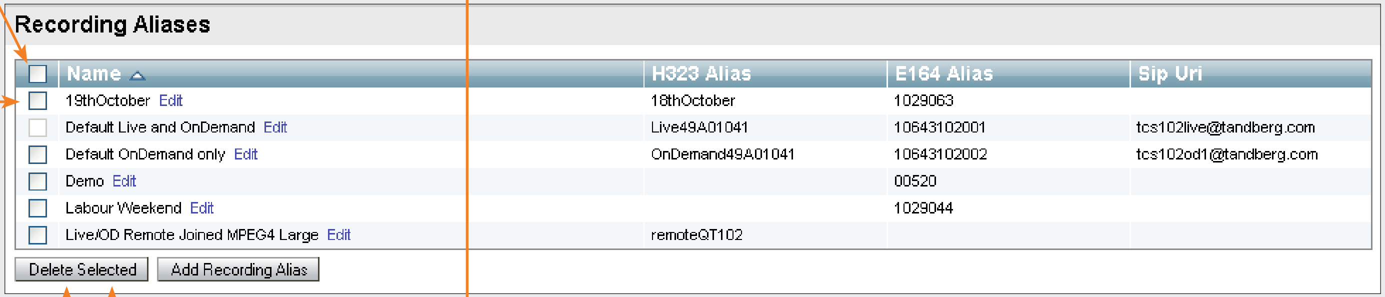
Only administrators can delete recording aliases.

To delete all recording aliases, click the select box next to the title Name and click the Delete Selected button.

To delete a single alias, select the check box to the left of the alias's name and click the Delete Selected button.

The recording alias that is the Default Recording Alias, has its check box greyed out and so cannot be deleted.

## Selecting Which Ones to Delete



TANDBERG
Content Server

# View Conferences

This section contains information about the View Conferences menu, including live, recorded and pending views and explains different conference views and permissions depending on user roles and access lists set on conferences. Here you will also find instructions on how to get help when using the TANDBERG Content Server.

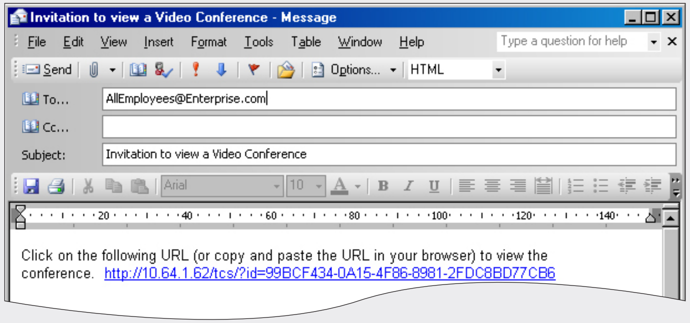
# Conference Types

## About Conference Types

The three types of conference views are

- Live
- Recorded
- Pending

## Details

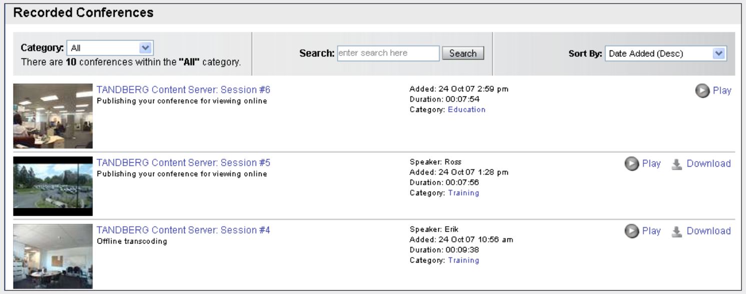



Live. They are occurring at the current time.

Users can receive an e-mail with a URL link to view the conference.

They can also click the link provided in the list of live conferences.

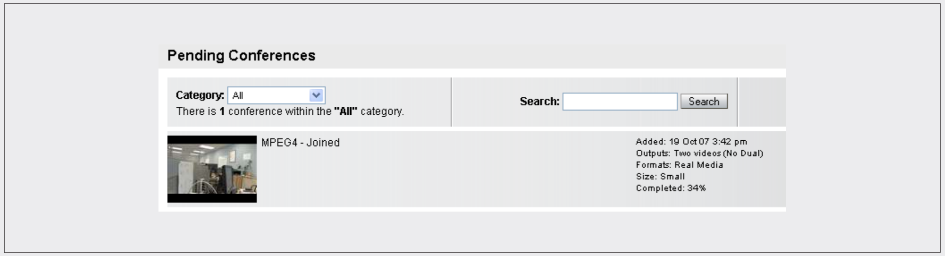
If the live conference finishes while you are watching it, you can close the window and reopen it to watch the recorded conference.




Recorded. These conferences have finished and are now viewable at any time.

To view one of the types of conferences, click on the View Conferences text link and choose from the list.

Click the Download option for playback of files on your portable player or on your computer using your video player.




Pending. These are conferences that have completed and are waiting for their outputs to be created. When an output has been created for a conference, for display in the viewer or for download, the conference will be available in the Recorded Conferences view. When all outputs have been created the conference will moved from the Pending view to the Recorded Conferences view.

## Category

Each conference can be assigned a Category at time of creation or after the conference has concluded.

By default all conferences are displayed in the interface.

By selecting a category, only conferences that are assigned that category will be displayed.

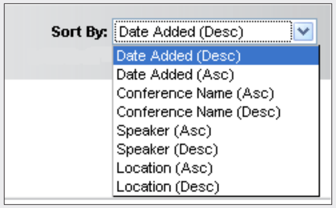
In this example there are 7 conferences with the category *Training*. Clicking on a displayed category for a conference will also display all conferences belonging to that category.

## Sorting Conferences

To sort conferences, use the Sort By: options at the top right of the screen.

Desc stands for Descending (going down a mountain) and means Newest first for Date Added and (Z to A) for Conference Name, Speaker and Location.

Asc stands for Ascending (going up a mountain) and means Oldest first for Date Added and (A to Z) for Conference Name, Speaker and Location.




## Searching

Conferences can be searched by Name, Description, Speaker, Copyright, and Keywords.

To search for a conference, enter the search criteria in the search field and click on the Search button.

The conference list will show only those conferences that match your search criteria.

Clicking the "<< Return to Content Library" text link will return the user and display all conferences.

Searching within a Category. Select the Category, enter the search criteria and then click the Search button.
If you search is not successful, change your search criteria, search all conferences or return to the Content Library to enter other search words

Use AND to find conferences that have both terms in the searchable fields, e.g. training AND education will find all conferences with both training and education in name, description, speaker copyright or keywords.

Use OR to find conferences that contain either term in the searchable fields, e.g. training OR education will find all conferences with either training OR education in the title, description or as keywords.

Use NOT to find conferences that do not contain the word or phrase, e.g. NOT training will find all conferences that do not contain the word training.

Use " " to find conferences that contain the exact text between the quotes marks, e.g. "Archived Conference" will find all conferences that have the exact phrase between the quotes contained in the searchable fields.

# Navigating Between Pages

## Navigation Options

The initial view of a screen that consists of a number of pages to display will look something like this view.

In this example there are more than 10 pages of screens and 51 conferences found for the current category and search.

Navigate the screens by clicking on the page numbers or the forward arrow to advance one page at a time.

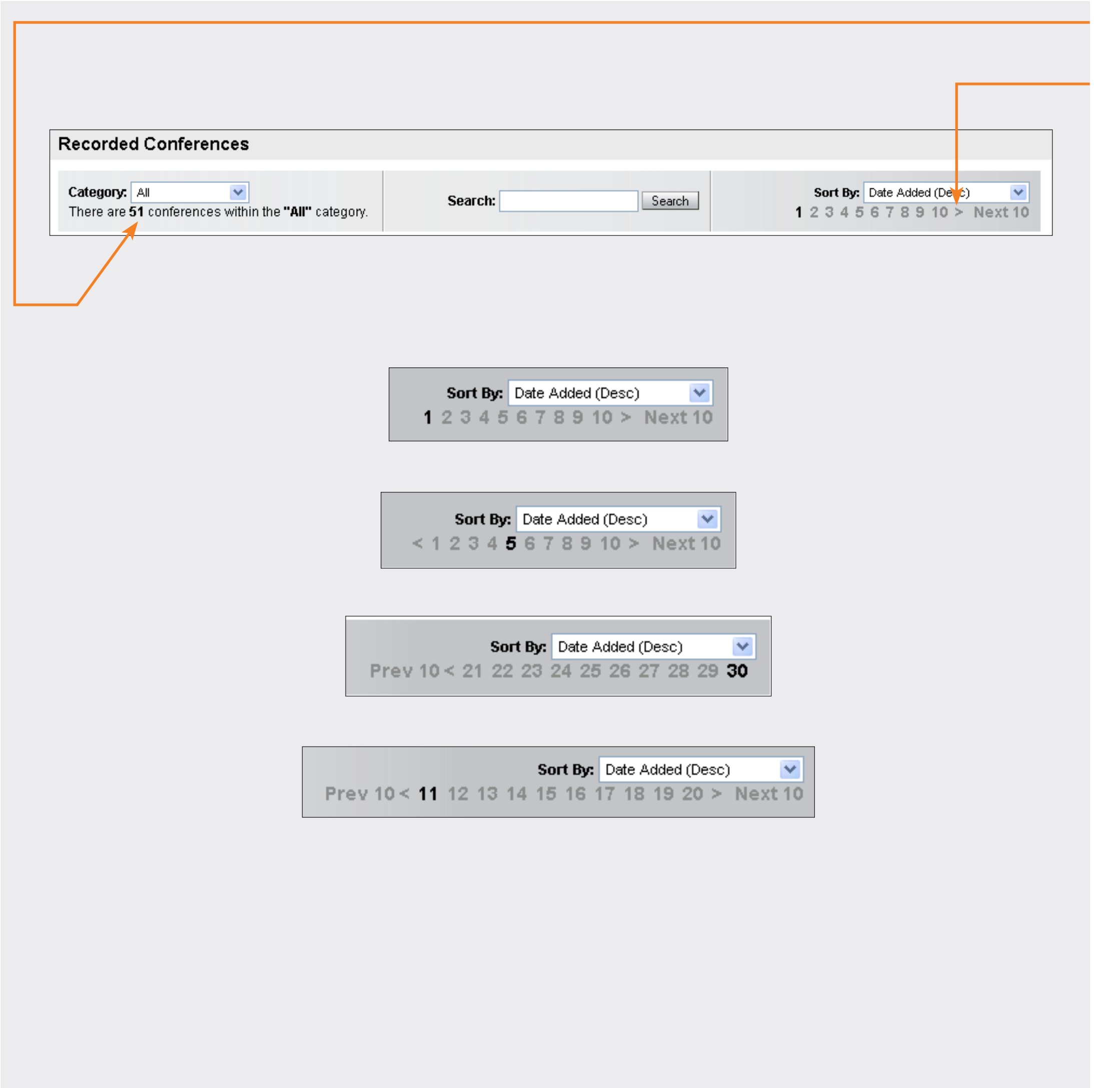
After Page 1 the Previous Page Arrow will also be clickable.

When the last page is reached the Next Page Arrow will no longer be available.

When there are more than 10 pages of information, the Next 10 pages link will appear after the next arrow.

Click on the Next 10 and Prev 10 links to move between the pages in groups of 10.

The numbers indicate each screen (page) of conferences displayed in order of how the conferences have been sorted using the column headings.




Total number of conferences in this list.

Click on the Next Page Arrow to go to the next page.

Click on the Page number to go directly to that page.

Current page is shown with **strong** typeface.

# Prompting Users to Log in to View a Conference



## Setting up Authenticated Access

Users of the TANDBERG Content Server may be prompted to login to view conferences.

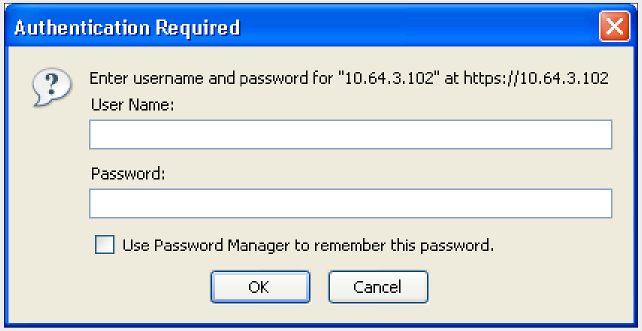
If the Content Server has Guest Access enabled (under the User Properties section in the Site Settings menu), then non-authenticated users will be able to browse conferences that allow all users to view them without logging in.

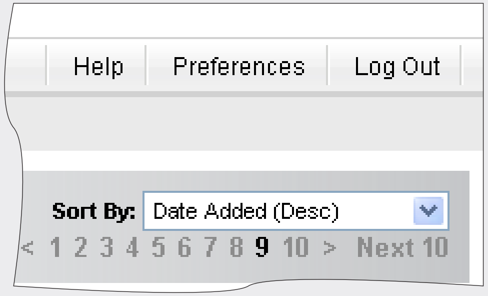
For authenticated access to the Content Server:

- If Local authentication has been selected in Site Settings, local users can log in by entering their user name and password.
- If Domain authentication has been selected in Site Settings, LDAP server details have been provided and the Content Server has been added to a domain, domain users can log in by entering their DOMAINNAME\Username and password.
- If LDAP authentication has been selected in Site Settings and LDAP server details have been provided, LDAP users can log in by entering their user name and password.

Click the Logout link when finished.

## Log in and Log out



# Context Sensitive Help

## About Context Sensitive Help

The TANDBERG Content Server now has context sensitive help for all screens.

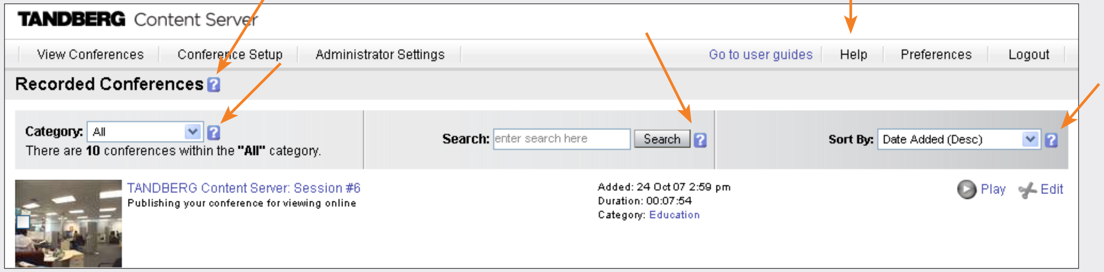
Activate this by clicking Help at the top right of each screen. A question mark will be activated for any on screen help.

A link to the user manuals on the TANDBERG web site will also be displayed next to the help link.

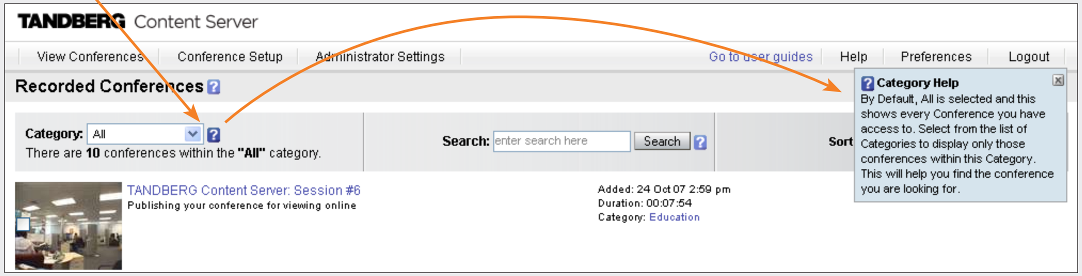
The Help question marks will stay on each screen until the user clicks on Help again to turn Help off.

The link Go to user guides opens a new window to the Documentation page on www.tandberg.com for users to find the TANDBERG Content Server User Manual.

## Examples




In this example, the Category question mark has been clicked.



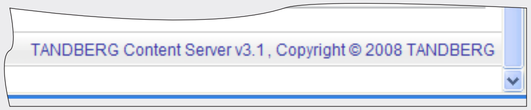
# Displaying Copyright

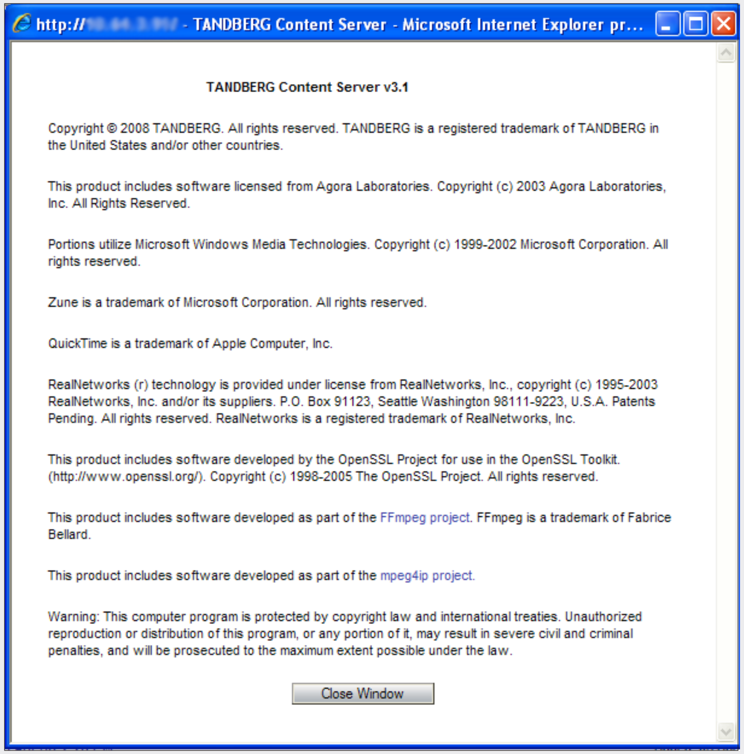
## About Displaying Copyright

To display copyright information, click on the text in the lower right corner of the screen.

This is copyright information regarding the Content Server as such and it contains no copyright information regarding the recorded material itself.

## The Copyright Display



## About User Preferences

Each user has their own preferences that change the number of items displayed of screens and whether Conference size is determined automatically or by the user.

Your Display Name as displayed at the bottom left of the screen before your User Name.

The number of Items per page can be set to 5, 10, 20, 50 or 100.

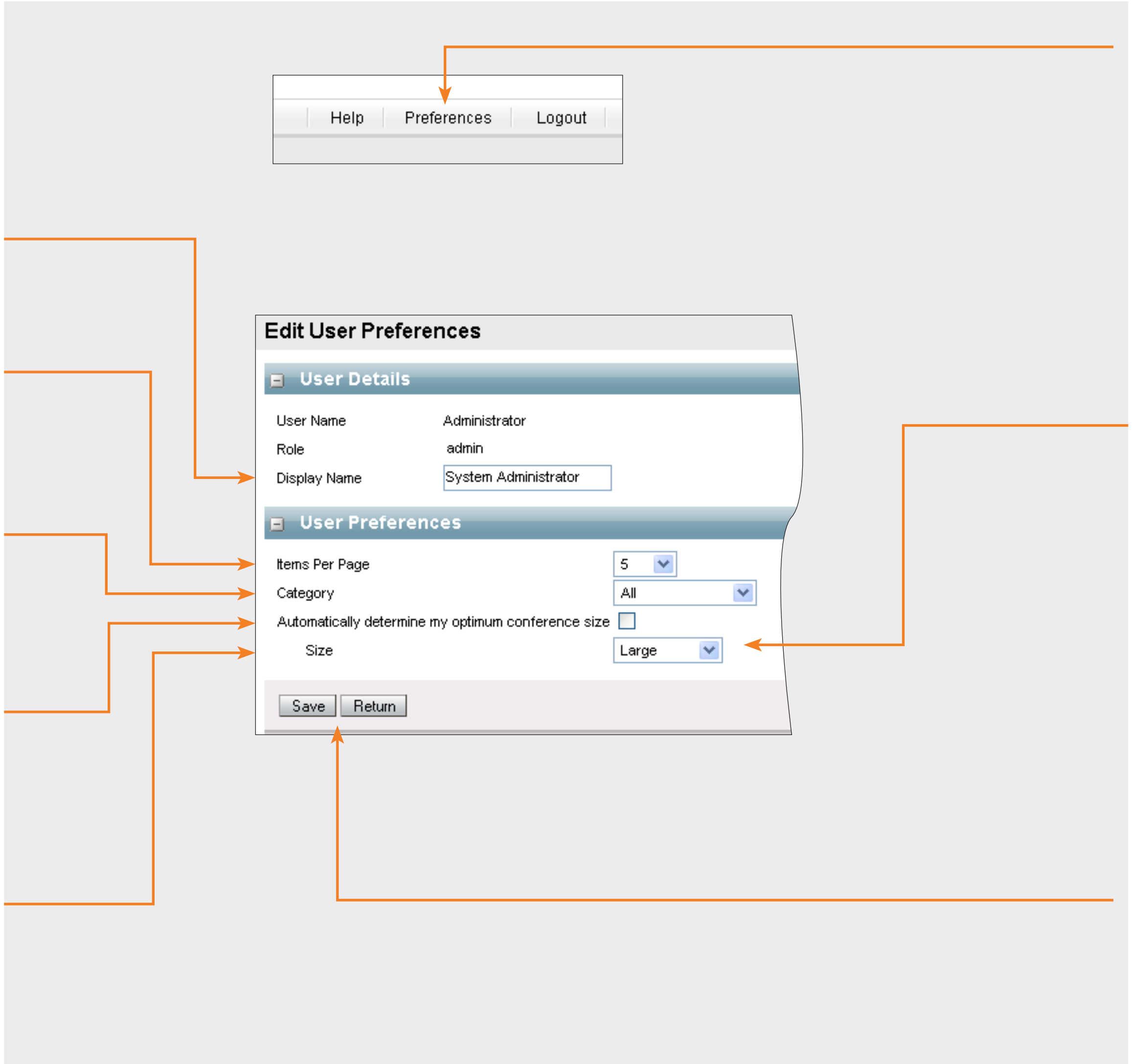
The Default Category, so on logging in, that category will be selected so that conferences only belonging to that category will be displayed.

Select Automatically determine my optimum conference size so that when a conference is chosen to play, the best size for the users connection will be presented. Conferences where the size is too big for the current connection will have an indication in the interface.

Select your optimum size if you don't want the Content Server calculate it for you.

The changes will take effect the next time the user logs into the Content Server.

## User Preferences Pop-up Window




To change your preferences, click the Preferences link at the top right of the screen or on your user name displayed at the bottom left of the screen.

This will display your user preferences enabling you to modify them.

Select the Size of the conference you want to watch. This will not take into account your current Internet connection speed but will deliver up the size conference you request, or the next largest. i.e. if you select Large and the biggest size is Medium, then that is what you will view. Users may not experience optimal viewing if their connection speed is significantly lower than the size they select.

- Click Save to update the User information.
- Click Return to go back to the previous screen.

# Content Viewer

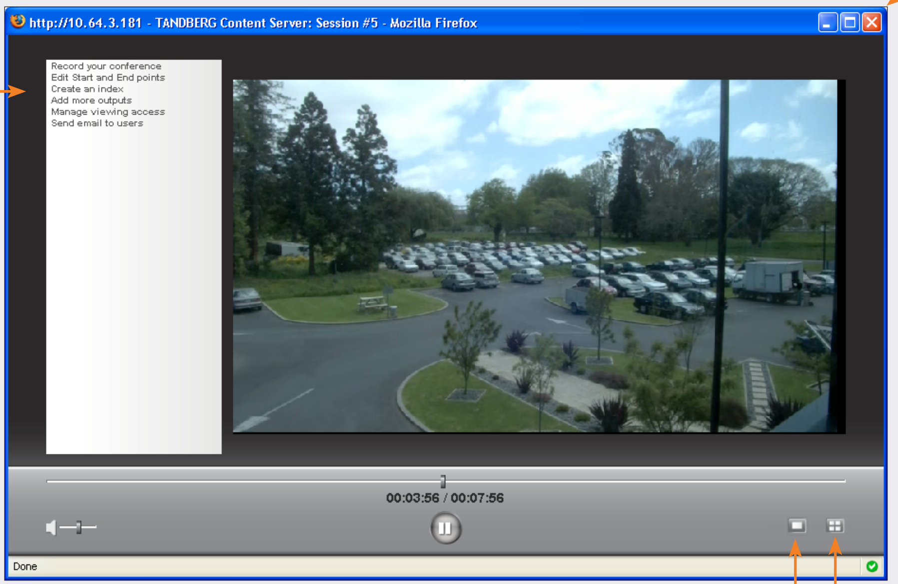
## Accessing Content Viewer

To access the Content Viewer, click on the thumbnail, the conference name or the Play icon and text. The viewer will display the best conference for your connection, as determined by your preferences.

The content window consists of the main and dual streams, the indexes and the controls.

The Conference Indexes are displayed if there are any.

## The Content Viewer Display




The Window will display the video, either as two videos (main and dual separate), joined (main and dual as one), switching (main then dual when it is activated) or picture in picture (big dual and main in a corner). Indexes will be presented if they are present.

Click here to close the Content Viewer.

The Slide list icon displays the still images taken of the Dual Stream for an Audio or a Small Video sized Conference. Clicking a slide will display and advance the Conference to that position. Alternatively, clicking the icon again will remove the slide list from view.

The Next layout icon displays the next screen layout. Clicking will toggle through the different layouts available for the conference.

# The Video Display

## The Video Display Sizes

The Conference is displayed in a window scaled for the size, conference format and items in the conference. A Conference that has indexes and dual with the main video will be displayed differently to a conference that has just one video output.

## There Are Two Ways to View a Video

1. The whole video is downloaded to your computer before it can be viewed (pseudo-streaming)

   A white line in the Play Progress Bar shows you the download progress. When the video has completely downloaded, it is ready for you to play by moving the slider or clicking on any of the Conference Indexes.

   You can still start playing the video before it is completely downloaded but you can only move the slider to any position within the white line.

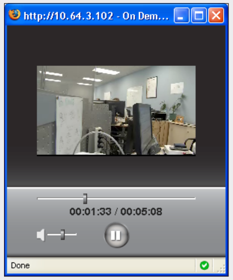
2. The video is streamed (true streaming)

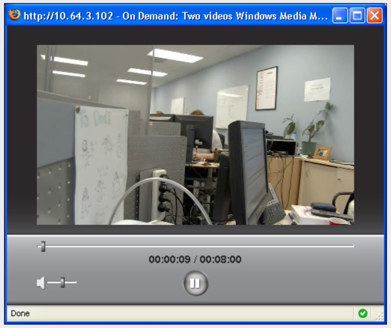
   The white line will not be displayed in this case.

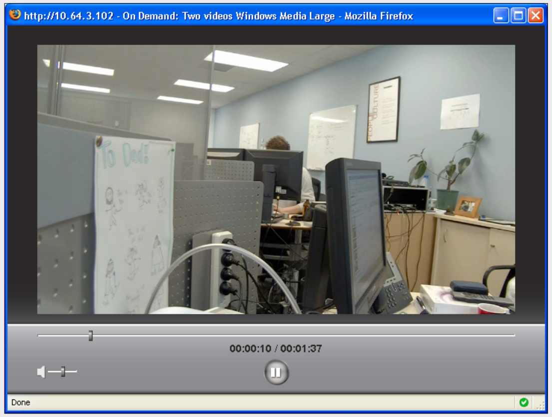
   You can move the slider to any part of the video to view it. The video will stop, load the requested part of the video to your browser (called 'buffering') and then begin playing.

   You can also click on an item in the Index to view the video from that location

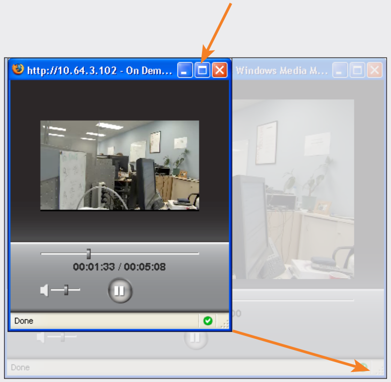
## Examples of Video Display Sizes




## Different Layouts and Screen Sizes




Change the size of the display by maximising the window, or by dragging the window manually using the control at the bottom right of the window. The conference will adjust to a "best fit" for the size of the window.

# The Video Display Controls

## Controlling the Video Display

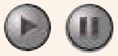
The video display controls let you start and pause the video as well as adjust the volume.

You can use the Play progress bar to move to any position in the video.

The Sound level controller is for adjusting the volume of the video.

Drag the volume slider right to increase the volume or left to decrease the volume.

Check your computer's audio level if no sound can be heard.



Play Pause

Click the Play button and the presentation will play from the current position of the slider.

The button will now change to the Pause button. Click to Pause the presentation. Click again to start playing.

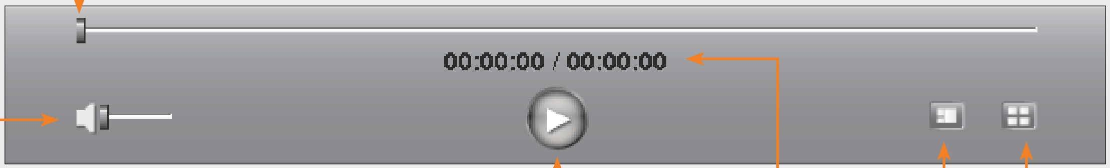
The numbers on the Time indicator display:

Left: the time elapsed from the start of the video.

Right: the total length of the video.

The format of the time display is hours: minutes: seconds.

## The Video Display Control Features




The Play Progress Bar shows:

- the progress of the downloading video
- the position where the video is playing
- a slider you can move to any position in the video.

The Slide list icon displays the still images taken of the Dual Stream for an Audio or a Small Video sized Conference. Clicking a slide will display and advance the Conference to that position. Alternatively, clicking the icon again will remove the slide list from view.

The Next layout icon displays the next screen layout. Clicking will toggle through the different layouts available for the conference.

## About Indexes

Indexes are available in the viewer if an editor of the conference has created them in the Content Editor. Indexes are used to progress the conference to the time where the index was added.

Indexes save time when users are trying to find a specific place in a conference to review.

## Index Features

By clicking an item in the Index, the video will move and start playing at that reference point and display the corresponding slide.

Link up the Indexes to the lower right list of Indexes in the interface.

# The Presentation Window

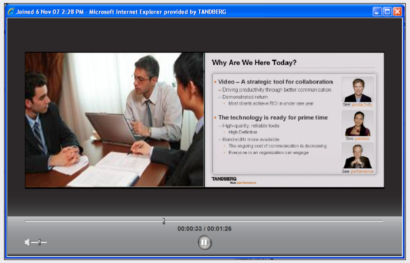
## About the Presentation Window

Your presentation will look differently depending on the type of layout you choose for your conference. You have four choices:

- Switching
- Two videos
- Joined
- Picture in picture.

## How The Different Layouts Look

Switching. If you open Dual Video stream during the conference, it will replace the view from the main camera in the Viewer.

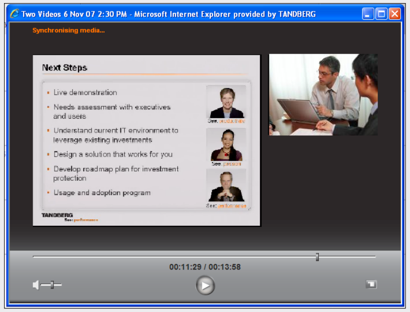


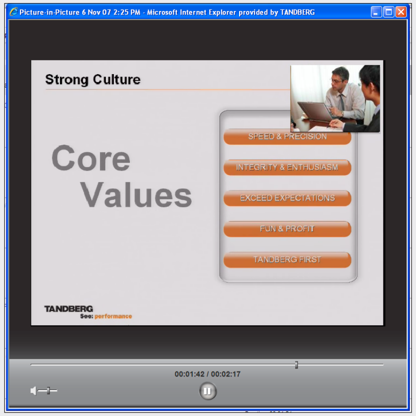

Joined. In the Joined layout, the presentation is always displayed to the right of the main video.

If Dual Video is never activated during the conference, a TANDBERG streaming poster will be displayed.

Two videos. If Dual Video is activated during the conference, it will be displayed alongside the main video.

If Dual Video is never opened during the conference, then after the conference has been transcoded, only the video from the main source will be avilable on demand.




Picture in picture. In this layout, your presentation is displayed in the main part of the window, and the main video source is an inset picture in the top right corner (the location of the inset picture can be changed in the template).

If Dual Video is never activated during the conference, only the main video will be displayed in the Viewer.

# Editing Recorded Conferences

## About Editing Conferences

Recorded conferences can be edited. Conference permissions and metadata can be changed. Using the Content Editor, indexes can be added, conferences can have their In (start) and Out (end) points changed and another conference can be added. Also, additional outputs to the original template can created using Add Outputs.

This can all be done from the Edit Conference Page.

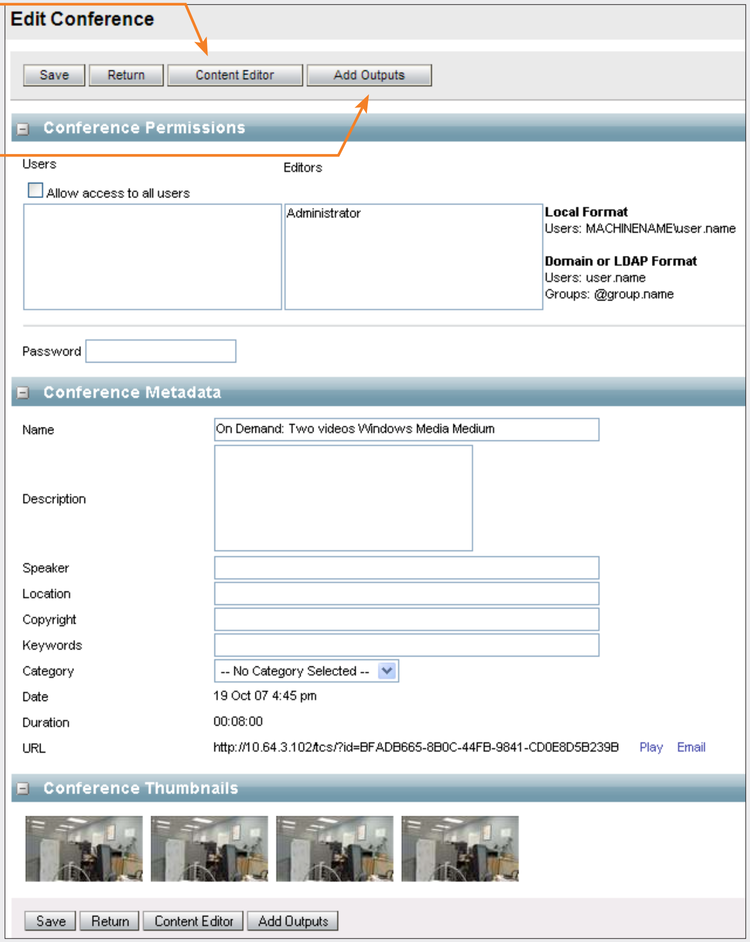
Kindly observe the following:

- Only editors and administrators can edit conferences.
- Editors can edit their own conferences.
- Administrators can edit all conferences.

## Deleting Conferences

In the Recorded Conferences page, to delete one or more conferences, select the check box on the conference thumbnail and click the Delete Selected button at the bottom left of the page. To delete all conferences on the page, Click the Select All button and click the Delete Selected button, both located at the bottom left of the Recorded Conferences page.

## The Editing Conferences Page




From this page editors and administrators can edit the conference permissions (i.e. who can view and edit the conference), conference metadata: such as name,description, speaker, etc. There are also buttons for the Content Editor and Add Outputs.

# Editing Conference Permissions

## About Editing Permissions

Editors. Editors can edit and delete a conference.

Users. Users can view the conference.

Entry in the Users field is disabled if Allow access to all users checkbox is selected.

Enter user or group names in the Editors or Users text fields one per line or separated by a semicolon, in the following formats:

Adding users under Local authentication:
Users must be entered in this format: MACHINENAME\user.name

Local user accounts must be created on the Content Server first (see Adding Users)

Adding local groups is not supported.

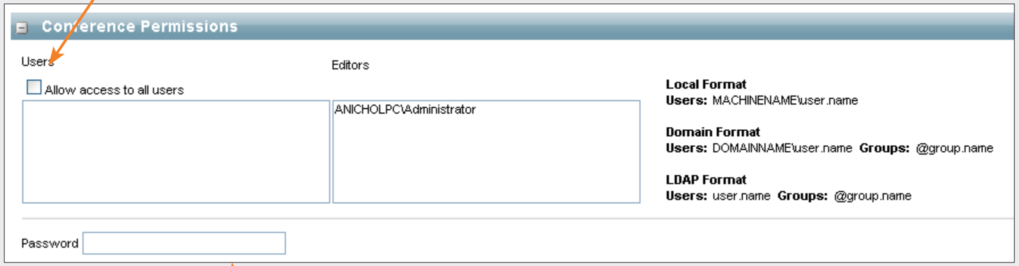
Adding users under Domain authentication
Users must be entered in this format: DOMAINNAME\user.name or DOMAINNAME\user.name:Display name

Groups must be entered in this format: @group.name

Adding users under LDAP authentication
Users must be entered in this format: user.name or user.name:Display name

Groups must be entered in this format: @group.name

## The Editing Conferences Permissions Page




Allow access to all users. If the Allow access to all users checkbox is selected AND Guest access is enabled in Site Settings, all guests and authenticated users can view the conference.

If the Allow access to all users checkbox is selected AND Guest access is not enabled in Site Settings, only authenticated users can view the conference.

If the Allow access to all users checkbox is not selected, editors can add individual users in the Users and groups into the Users Field so they will have access to view the conference.

Password. Enter a password to restrict streaming access to this conference.

If no password is entered, then there is no restriction on who has access to the conference if they can view it in the conference list.

# Editing Conference Metadata

## The Editing Conferences Metadata Page

All the fields shown here, except the Name are optional and can be left empty, but the more metadata provided will make it easier for users to find your conference.

Click the Save button if you have made changes to any fields on the screen.

Click Return to go back to the Conference List.

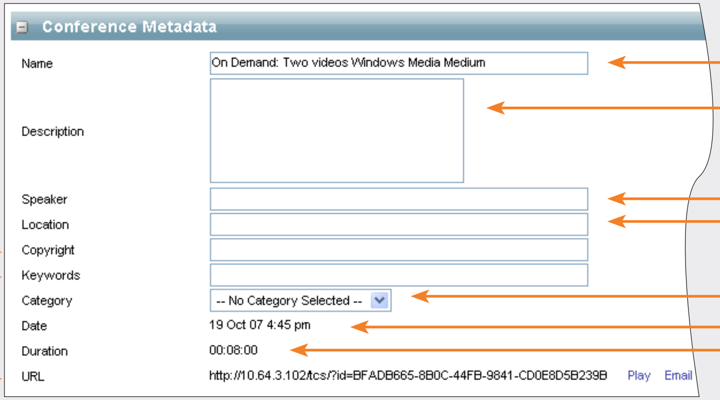
Copyright. Enter any copyright information about the conference.

Keywords. Enter any keywords that can be used when searching for the conference. Separate each keyword with a space.

URL. The Conference URL is displayed on this page with two links available, Watch and Email:

Clicking on View to open the conference in the Viewer to watch or listen to.

Clicking on Email will create a new email message in your email client with the conference URL which you can send to users.




Name. The name of the conference that participants will see.

Description. Details about the conference to be displayed beneath the Conference Name in the Conference List.

Speaker. Name or names of the presenters in the conference.

Location. Where the conference takes place.

Category. Select the appropriate Category from the pull down list for this conference.

Date. The date and time of the conference will be displayed at creation time of the conference.

Duration. The length of the conference. This is also updated when the conference has been edited.

# Conference Thumbnails

## About Conference Thumbnails

Up to 5 thumbnails will be generated for a recorded conference. They are created at 5 seconds, 1 minute, 5 minutes, 30 minutes and 1 hour.

The default thumbnail is set to 30 minutes, unless the call is shorter, then the last generated Thumbnail will be used.

If the output is two videos, the thumbnails will be of the main input.

For Joined, the thumbnail will a combination of main and dual. If dual has not been turned on, the dual will be a poster.

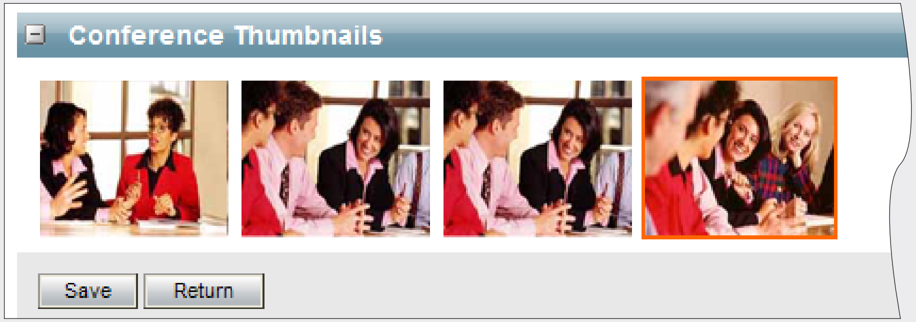
For the switching output, the thumbnail will be main but if dual is on, then it will be the dual image.

Picture in picture will be the dual image with the main insert.

To change the thumbnail, select another one by clicking on it and then Save the change. The new thumbnail will display for users in the interface.

Editors changing the thumbnail may need to empty their cache and also refresh their browser to see the change.

## The Conference Thumbnails



# Content Editor

## About the Content Editor

Use the Content Editor to edit your conference in the following ways:

- Change the In and/or Out point/s of the conference
- Add indexes to the conference
- Add another conference to the edited one.

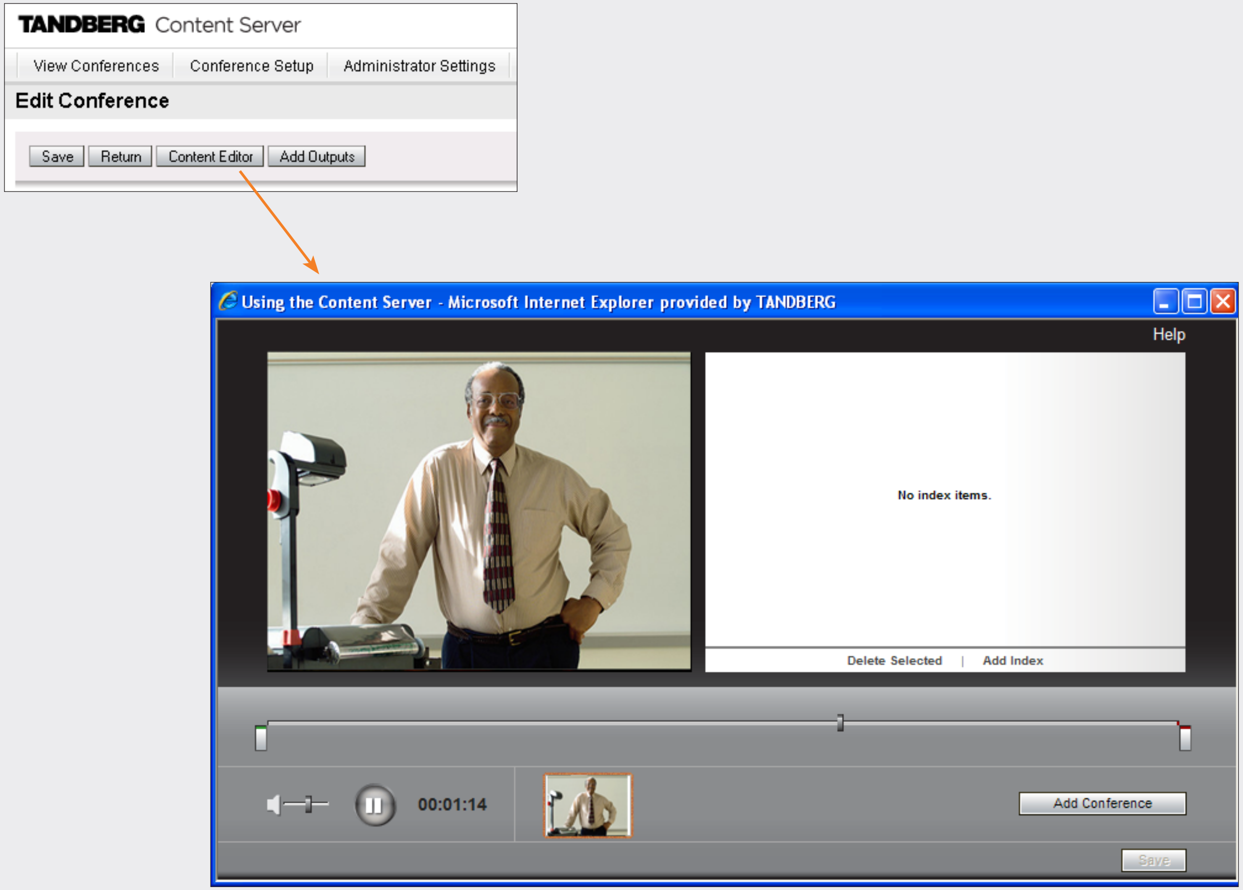
Access to the Content Editor is available from the Edit Conference page to Administrators and Users who have permission to edit a conference.

After clicking the Content Editor button, the Content Editor will open in a new window.

The top section displays the Conference movie to the left and the Indexes options to the right.

The bottom section has the conference controls, the in and out points and the option to import another Conference.

## What the Content Editor Looks Like



# Adding Indexes

## About Indexes

An Index is a point in a Conference that a User can click on to advance the Conference to.

Only Editors to Conferences can add Indexes.

Every Conference should use Indexes as a time saving device for users to find the content they want quickly and easily.

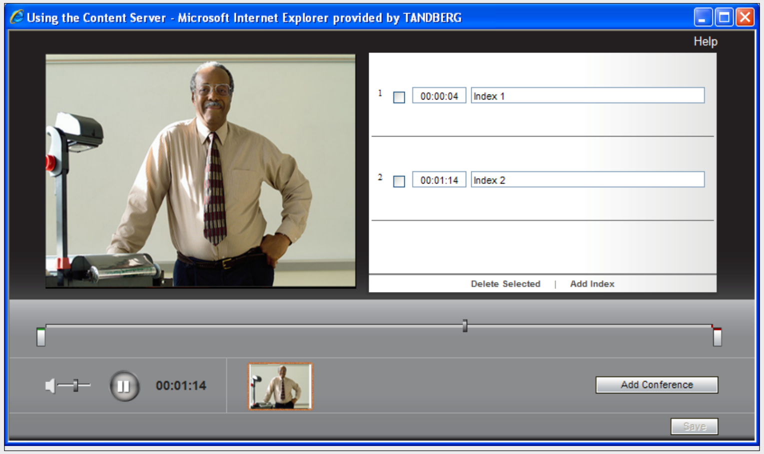
Indexes can be selected by clicking the select box to the left of the Index.

When an Index is selected, a small vertical line will be displayed above the Time Line to indicate the position of the Index.

Times entered as seconds will be converted.

Example: 65 will be converted to 00:01:05

## How It Looks with Indexes

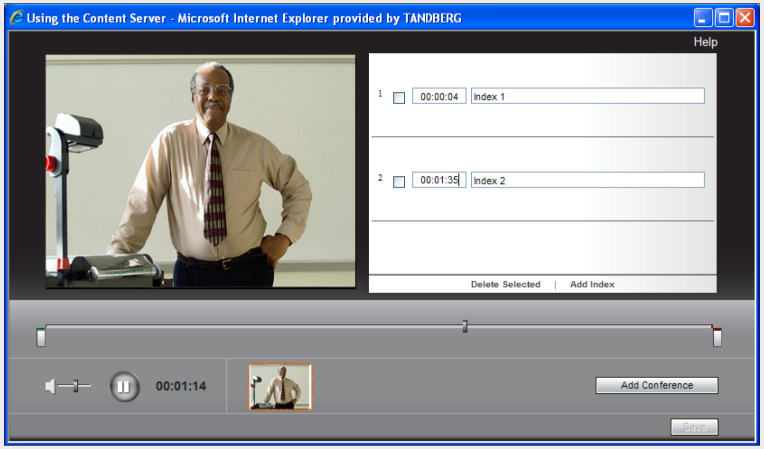



## Adding Indexes

Adding Indexes into the timeline is done by clicking the Add Index text link when the scrubber bar is correct place while the clip is playing.

The index will be added into the list and given an initial name of Index 1, Index 2 etc.

## Selecting an Index and Changing the Time




## Moving Existing Markers

The only way to change the position of an Index is to change its time.

Change the time (format is hh:mm:ss) in the time field and press enter.

# Removing Indexes

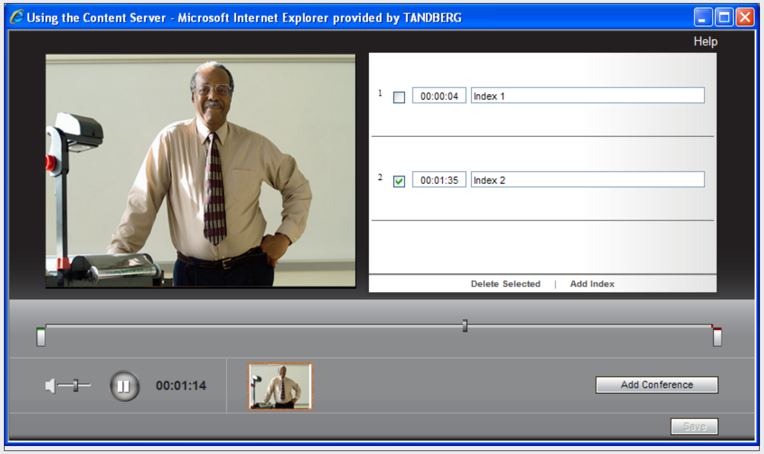
## About Removing Indexes

Select the indexes to be removed by clicking the select box to the left of the marker time.

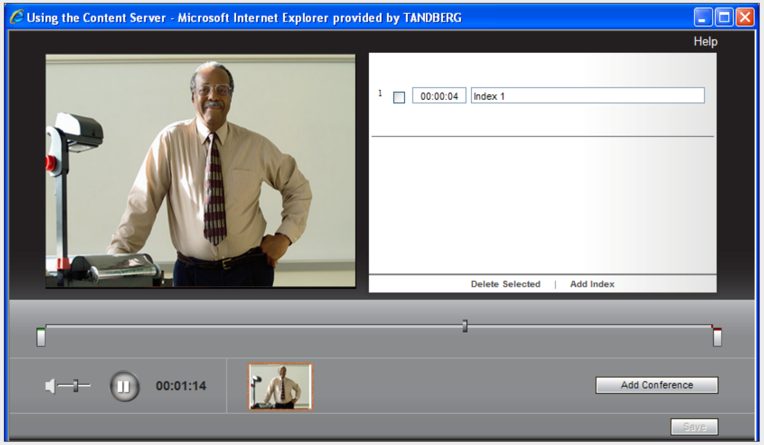
When the indexes that you want to remove have been selected, click the Delete Selected button.

Note: Click the Save button after changes have been made.

## Selecting an Index




## The Result of the Index Being Deleted



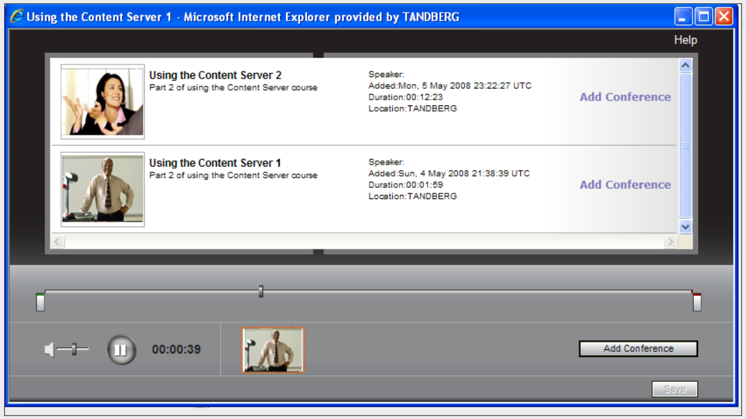
# Adding Conferences

## About Adding Conferences

Use the Add Conference option to add and then edit two different conferences on your TANDBERG Content Server into one.

Importing can only be done if the outputs of each conference are the same and the editor has permission to import the conference.

## How It Looks When the Add Conference Button Is Clicked




## Add Conference Options

Click the Add Conference button and a list of available conferences will be displayed.

Click the Add Conference link for the Conference you want to add to the currently edited one.

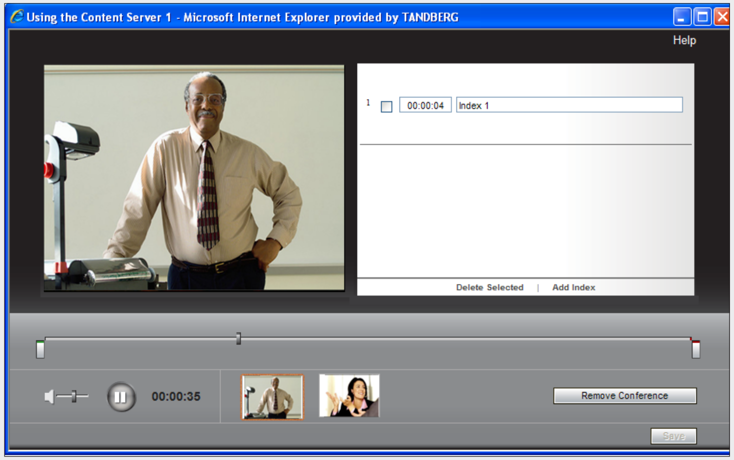
## Removing Breaks in Conferences

You may have recorded a conference that has a break in the middle that you want to remove. This is how it is done.

Edit the conference and then add the same conference again using the Add Conference button. Adjust the In and Out points of each conference to remove the section in the Conference that you do not want.

Add indexes to each conference and save your changes. Check the result in the Viewer and make any final adjustments.

## The Content Editor with the Edited and Added Conference Thumbnails Next to Each Other




## Options When Added

When adding another conference, its thumbnail will be displayed to the right of the edited conference's thumbnail. The currently selected conference will have an orange rectangle around it.

Note: If the wrong conference has been added, click the Remove Conference button, then add the correct one. Original conferences will not be damaged by adding or removing them from another conference.

To edit the Added Conference, click its thumbnail and continue. The selected conference can have indexes added as well as In and Out Points changed.

# Adding Outputs

## About Adding Outputs

Administrators, owners and editors can Add Outputs to a conference once it has completed.

Why would you do this?

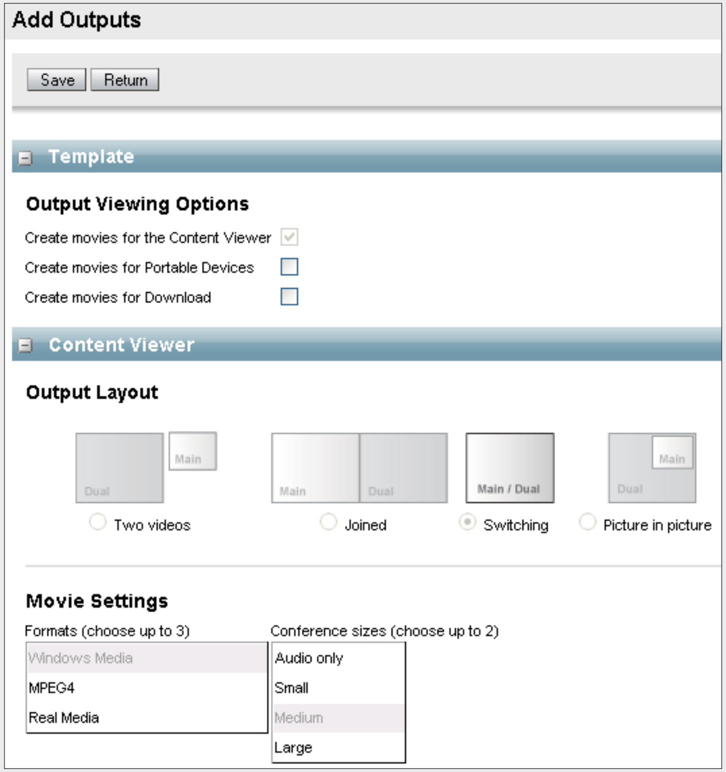
The original recording may not contain the correct outputs needed by your users or a request is made for a format that was not created and so you add it to the conference.

Read the Template Editor section of this Manual as to how to use this screen.

Some things to note when Adding Outputs:

- The original Layout cannot be changed
- Only 2 sizes can be chosen for Viewer and Download
- Only on-demand outputs will be created
- The total number of outputs can exceed the 6 when the Conference is created
- Adding Outputs will put an added load on the TANDBERG Content Server
- The Conference Outputs will be added into the Offline Transcoding Queue for processing and will start when all the preceding Conferences have been processed.

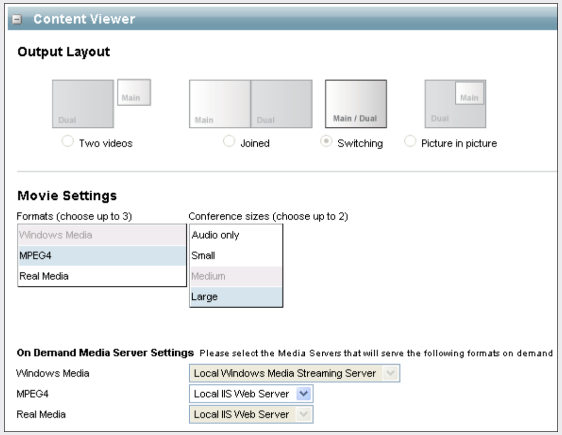
## The Add Outputs Screen



# Example Screenshots

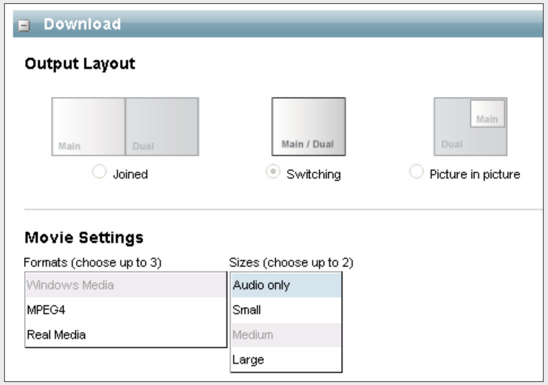
## Adding Format MPEG4 and a new size Large

This will result in a new Windows Media Large size as well as and MPEG4 Medium and Large all with the Two Videos Layout.

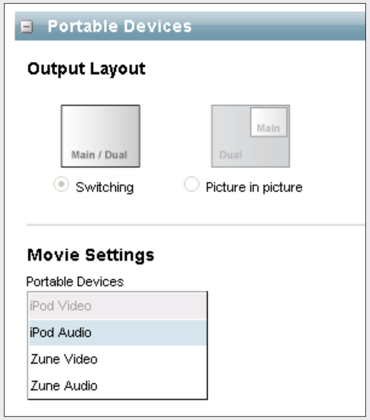



## Download

A new Windows Media Audio only download is to be added to the Windows Media Medium download that has already been created.




## Portable Devices




A new iPod Audio output has been added to the iPod Video that has been created already.

TANDBERG
# Content Server

## Appendices

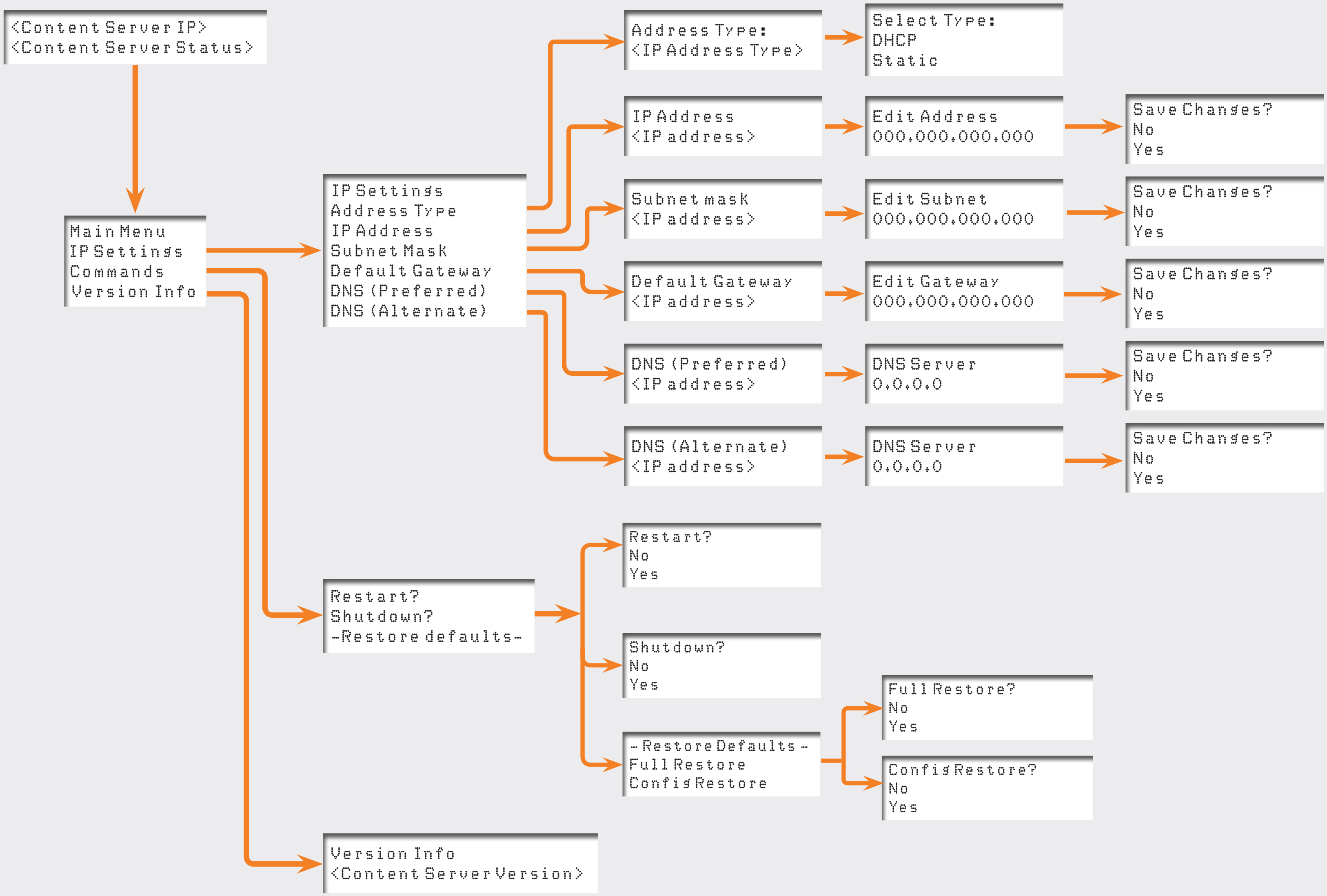
The Appendices contain information you may need to better understand the TANDBERG Content Server.

Here you will find an LCD panel overview, a compatibility guide (which browser and media players version to use), Content Server port assignment, and recording templates overview.

# Appendix 1: LED Panel Menu Structure

Content Server Status
is displayed as:

- Idle (when the server is not in a call and not transcoding).
- In Call (when the server is in a call).
- Transcoding (when the server is not in call and transcoding is in progress).



# Appendix 2: Compatibility

## About Compatibility

For correct playback of streaming video on client machines, please read the compatibility notes on this page.

Please ensure that you have JavaScript, ActiveX and media plugins enabled in your browser.

## Platform and Browser Version Compatibility

| OS | Browser | MPEG4 | Windows Media | Real Media |
|---|---|---|---|---|
| MAC | FireFox 2 and higher | Yes | No | No |
| | Safari 2 and higher | Yes | No | No |
| WIN | Mozilla FireFox 2 and higher | Yes | Yes | Yes |
| | Internet Explorer 6.0, and higher | Yes | Yes | Yes |

Check the platform, browser and browser version, then select the appropriate streaming format for content creation and playback according to the compatibility matrix.

## Recommended Player Versions

| Content Type | Recommended Player |
|---|---|
| Windows Media content | Windows Media Player 9.x or higher |
| Real Media content | RealPlayer™ 10.x |
| MPEG4 content | QuickTime 7.x |

## Playback of Windows Media Content in Mozilla Firefox

Platform: Windows.

Browser version: Mozilla Firefox (all versions).

Streaming content format: Windows Media content.

Mozilla Firefox browsers require a special Microsoft Windows Media Player Plugin control plugin to be installed to display movies in Windows Media® WMV format.

The following Microsoft Windows Media Player Plugin for Mozilla Firefox has been tested and is available as a free download at the time of publishing this user guide from: http://port25.technet.com/pages/windows-media-player-firefox-plugin-download.aspx

# Appendix 3: Recording Templates at a Glance

| Description | Recorded Output |
|---|---|
| Windows Media PoP Live and On Demand | Uses the Two Videos output consisting of a Main and a Dual. Conference size is Medium for both Live and On Demand. |
| Windows Media PoP Live and On Demand with Portable Device Download | Uses the Two Videos output consisting of a Main and a Dual. Conference size is Medium for both Live and On Demand. Also has downloadable Video outputs for Zune and iPod using the Switching Output. |
| Windows Media PoP On Demand Only | Uses the Two Videos output consisting of a Main and a Dual. Conference size is Medium for On Demand. No live output from this Template. |
| Windows Media Single Live and On Demand | Uses the Switching output. Displays Main but when Dual is switched on, Dual is displayed. Conference size is Medium for both Live and On Demand. |
| Windows Media Single On Demand Only | Uses the Switching output. Displays Main but when Dual is switched on, Dual is displayed. Conference size is Medium for On Demand viewing only. |

# Appendix 4: TANDBERG Content Server Port Assignment

The table lists ports used by the TANDBERG Content Server.

| Port | Protocols | Used by |
|---|---|---|
| 80 | TCP | The TANDBERG Content Server web application |
| 443 | TCP | The TANDBERG Content Server web application on SSL |
| 554 | TCP, UDP | WMS RTSP Server Control Protocol |
| 1718 | UDP | Gatekeeper discovery |
| 1719 | UDP | RAS |
| 1720 | | Listen Port |
| 1755 | TCP, UDP | WMS MMS Server Control Protocol |
| 2090 | TCP | The TANDBERG Content Server database |
| 3389 | TCP | Remote Desktop Protocol |
| 8008 | TCP | The TANDBERG Content Server application |
| 8080 | TCP | WMS HTTP Server Control Protocol |
| 8096 | TCP | Windows Media Administration Site on SSL |
| 8098 | TCP | Windows Web Administration on SSL |

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